



THE
MINERALOGICAL SOCIETY
OF
NEW SOUTH WALES INC

C/o School of Natural Science
B.C.R.I. Parramatta Campus University of Western Sydney
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Website: www.minsocnsw.org.au

NEWSLETTER

SEPTEMBER 2012

The September Meeting will be held on Friday the 7th of September at 7.30 p.m. in the LZG14 lecture theatre on the ground floor of Building LZ in the Science campus of the University of Western Sydney on the corner of Victoria Road and James Ruse Drive in North Parramatta.

The program for the September Meeting will commence with a display and description of : -

‘Amethyst – The Pretty and the Unusual. Display by Members’.

Members are invited to bring in specimens of amethyst, particularly any more unusual specimens, to display to the Meeting.

The Display will be followed by a talk to be given by Sylvia French on

‘Gem Analysis’.

FORTHCOMING MEETINGS

Society General Meetings will be held on the first Friday of each month for the rest of the year. Subject to circumstances some changes to the following schedule of program subjects and speakers may have to be made in due course.

October 5th: ‘Members Forum. Collections and Recollections – Kingsgate’ Members are particularly invited to bring in specimens, information, collecting experiences and anecdotes from this significant and productive site.

The display will be followed by a lecture and photographic montage by Gary Sutherland on : - ‘The Museums of England’.

November 2nd: There will be a lecture on 'New Minerals from Australia' to be given by Peter Leverett who would be referring to all the recent additions of minerals from Australia, going back a few years.

December 7th: Annual Christmas Social and 'Swap n' Sell.

February 1st 2013: 'Minerals of Arizona'. Montage of photographs by Paul Melville, introduced and described by John Rankin.

March 1st 2013: Tucson Update report to be given by Peter Beckwith or Peter Williams. The report will be followed by a lecture to be given by George Stacey on - 'Mt Isa - The Mine and the Spinifex'.

April 5th 2013: Talk on 'Fluorite' by Gary Sutherland.

May 3rd 2013: Members Mini-Auction.

THE ANNUAL GENERAL MEETING AUGUST 3rd 2012

The 2012 A.G.M. was held in the LZG14 lecture room at U.W.S. North Parramatta as scheduled and attended by some forty members comprising a quorum. The Meeting was opened by the Society President, Dieter Mylius.

Before the official business of the A.G.M. commenced there were a few announcements.

John Chapman addressed the Meeting to repeat the sad news about the death of Society member **Harvey Henley** only a week previously and only about a year since he retired after a long professional career working latterly for many years for the Geological Survey. A number of Society members and a great many more people who had known Harvey over the years attended his funeral at Palmdale earlier this week.

Arthur Roffey reminded members about the forthcoming **Gemkhana State Gem Show** being held over the October long weekend this year in the Mudgee Showground and that subject to application there would be stall vacancy for the Mineralogical Society. Any members interested in attending the Gemkhana to help advertise the Society and needing a stall were recommended to speak to John Behrens.

John Chapman notified members that Society member John August was holding a one-day **WEA course called 'Planet Earth'** at Bathurst on Sunday the 19th of August. The outline was *'Planet Earth, What is our Geological History?, Why do minerals look the way they do?, How did the Blue Mountains, the Sydney Basin and Lake Burley Griffin form?, etc* and a range of other topics. The course would last a whole day and would cost \$109. More may be held in the future. John Chapman could provide more details to members interested in the course.

With no further announcements the President moved to the official business of the Meeting and delivered his President's Report for 2011/2012. The following text has been provided by Dieter Mylius.

2011-2012 PRESIDENT'S REPORT

Good evening everyone,

Welcome to the 2012 Annual General Meeting of the Mineralogical Society of NSW Inc. In preparing this report I had a quick look at last year's report, and was tempted to change the date and a few names to protect the innocent, and resubmit it, then thought, better not. But, not all that much has changed.

Last year, I mentioned that the first Friday night of the month is always something I look forward to, not only to hear and see the presentations, but to spend time with like-minded people chatting about our passion, and looking at mineral specimens.

The Mineralogical Society is in good shape. Our numbers are good with more than 120 members, and financially we are sound. Graham will give the financial report shortly. We have had a great year with a range of interesting and entertaining talks, the ever popular May auction, and of course, the Christmas social and sales night. While attendances have been good, if you look around, you will see there are still some vacant seats, so there is room to invite your friends.

We have two successful field trips to Garrawilla and Scone areas, with some diligent collectors doing quite well.

The micro-mineral group continues to meet every other month in various people's homes, and is open to all, whether you have a microscope or not. Micro mineral sessions are now considered an essential component at the national mineral seminars.

It was a joy to announce during the year that Arthur Roffey be appointed as a life member of the Mineralogical Society of NSW.

Equally, it was with sadness, that we learned recently that Harvey Henley lost his fight against cancer. He will be greatly missed.

I'd like to thank the members of the outgoing committee for the work that has been done this year. Most of us have been on the committee for many years, but I suspect we enjoy it. During the year two of our committee members unfortunately had to resign their position due to personal reasons, and a third member will not be re-nominating. I thank them especially for their contribution. Speaking of nominating, getting on the committee is hardly a contest, so if you feel a need or desire to contribute with new ideas and ways of doing things, please nominate for committee, if not this year, then next.

I'd also like to thank the many members that have contributed to the Society in the form of talks, by donating specimens and for giving words of encouragement, as well as doing those little things that many may not notice.

I especially would like to thank Jim Sharpe, who, although no longer on the committee, seems to turn up at most committee meetings. Jim largely looks after the program for Friday nights, as well as each year organising the May mineral auction, the mineral sale in February where money raised goes to Kids with Cancer. Jim has also started the regular "Member Collections and Recollections" segments which are designed for all members to contribute with specimens and anecdotes.

The December Christmas social was the usual wonderful event. We were nearly bursting at the seams on the night and it was quite hard to move around at times. A big thank you to John Chapman, Vicky, Gary, Jim and David and other helpers for providing the delicious spread for the night, and again of course, to members for bringing in so many specimens for exchange and sale.

While thanking people, I said it last year, and will repeat it this year. Where would we be without our secretary, George Laking? He deals with correspondence, does the mailing, puts together the newsletter and keeps the minutes of committee meetings. He's our go-to man. He did whisper to me the other day that he really would like to do some travelling, so an understudy or two for his many roles is needed.

Challenges for the coming year are to:

Put on the 2013 Joint Mineralogical Societies Seminar in June, and the current committee is well down the track of organising the venue and planning the program. Generally, the committee would like more participation of members, if not in giving talks, in bringing in specimens relevant to the talk each month. It seems to be the same few that bring in their specimens. We would also like to see new faces amongst members, especially younger ones, which may also lead to new blood in the committee

Lastly, but probably most importantly, I'm sure we'd all like to join in a vote of thanks to Peter Williams and the University of Western Sydney for supporting the Society by allowing us to use this room over so many years without charge.

Again, I thank you all for your support, and I wish the incoming committee a successful year ahead.

Dieter Mylius
August 2012

At the conclusion of the President's Report the Society Treasurer, Graham Ogle, handed around copies of the Annual Financial Report which also provided figures for the previous financial year. The Treasurer then worked through the figures comparing some to the previous year and otherwise explaining aspects of many of them as he proceeded.

ANNUAL REPORT 2011 – 2012

FINANCIAL STATEMENT

<u>Funds in hand</u>	<u>2011-12</u>	<u>2010-2011</u>
1. Balance in operating (current) account CBA # 06 2016 28023647 @ 30th June 2012	\$8,737.73	(\$8,036.25)
2. Funds in CBA Term Deposit	\$31,966.32	(31,966.32)
3. Cash in Hand	\$46.00	(\$46.00)
4. Total Society funds at 30th June 2012	\$40,750.05	(\$40,048.57)
<u>Increase in funds</u>	<u>\$701.48</u>	(\$1,931.54)
<u>Income</u>		
Subscriptions	\$3,038.00	(\$2,317.00)
Supper donations and mineral sales	\$1,123.05	(\$1,199.15)
Sales of Australian Journals of Mineralogy	\$160.00	(\$250.00)
Sales for the Kids with Cancer charity	\$1,223.65	(\$1,376.30)
Interest on operating account	\$38.68	(\$28.67)
Interest on term deposit	\$1,917.98	(\$1,598.32)
<u>TOTAL</u>	<u>\$7,521.36</u>	(\$6,769.44)

Expenditure

Meeting Refreshment expenses	\$1,210.42	(\$1,170.44)
Personal Accident Insurance	\$486.50	(\$114.00)
Subscriptions to mineralogical magazines and Associations, Internet	\$698.49	(\$488.76)
Transfer of money raised for Kids with Cancer	\$1,223.65	(\$1,376.30)
Contribution to Australian Museum specimen purchase.	\$1,500.00	
Contribution to AJM.		(\$1,000.00)
Printing	\$1,164.07	(\$74.55)
Other - Public Liability Insurance / Dept of Fair Trading Speaker travel expenses etc.	\$536.75	(\$613.85)
	<u>TOTAL</u>	<u>\$6,819.88</u>
<u>Income less Expenditure,</u>	\$701.48	(\$1,931.54)

Liabilities

NIL

Non-cash Assets

Estimated value based on 10% depreciation pa.

Mineral Trimmer	\$35
Display cabinets	\$251
Library	\$1,161
Microscope	\$119
Stock: Back issues of AJM	\$120
<u>Total Assets</u>	<u>\$1,686</u>

The above statement indicates that the Society is in a sound financial position

The accounts have been examined and confirmed by Jim Sharpe

Graham Ogle: Treasurer
3rd August 2012

The Treasurer explained that the Society was in very good financial shape with the end-of-year balance comfortably in the black. Various features of the Report figures were referred to and described. The balance of the Society's two accounts was pointed out with the operating cheque account showing an increase over the year. The term deposit account showed the same balance as the previous year because the interest from that account has latterly been added to the cheque account.

Special expenses during the year had been the donation by the Society of \$1,500 to the Australian Museum to contribute towards the purchase of a notable azurite 'sun' specimen which will be placed on display in due course. The Personal Accident Insurance for all members had increased although this had obviously been offset by the increase in subscription fees. There had also been a larger printing account mainly due to ordering a print run of the Society promotional leaflets.

Otherwise the usual expenses and income were similar to the previous year, supper donations, sales of AJMs, and the proceeds of the Kids with Cancer mineral sale.

The Report had been examined and confirmed by Jim Sharpe, the previous Treasurer, and Graham Ogle thanked Jim for his work.

A final point made by the Treasurer was to recommend that all members attending Meetings be diligent about donating refreshment money to the collection box. Whilst the Annual Report showed that refreshment costs were approximately equivalent to donations a proportion of the donation income was due to minerals or magazines having been brought in by members to sell with the money then added to the collection box. The refreshment donations alone were actually less than the cost of providing them. Graham Ogle recommended that members remember to donate the requested dollar.

At the end of the Treasurer's Report Peter Williams moved that the Report be accepted. The proposal was seconded by Robert Falzon with all in favour.

Robert Falzon also moved a vote of thanks to the outgoing Society Committee by whose efforts the members were able to attend Meetings month after month and indulge their interest and passion in the beauty and mystique of minerals of the World.

The proposal was seconded by Graham Delaforce with all in favour.

ELECTION OF THE COMMITTEE FOR 2012 / 2013

Dieter Mylius asked Arthur Roffey to assume the task of Returning Officer and to take the chair of the Meeting for the election of the 2012/2013 Society Office-Bearers and Committee members.

The Returning Officer noted that only single nominations had been put forward for the Committee positions and accordingly was able to dispense with a ballot. He read out the names and positions of the nominated Committee members and declared them elected unopposed.

PRESIDENT:	Dieter Mylius
VICE-PRESIDENT:	John Chapman
SECRETARY:	George Laking
TREASURER:	Graham Ogle
COMMITTEE MEMBERS:	David Colchester
	John Rankin
	Gary Sutherland
	Jeremy Taylor-Edwards

Arthur Roffey noted that only eight nominations had been presented for the Committee leaving one vacancy. It was further noted however that the Committee was at liberty to appoint members to vacant positions throughout the year at times other than at the A.G.M. and that the vacancy would be filled in due course.

The Returning Officer then handed the chair back to the newly-elected Society President, Dieter Mylius, who upon asking if there was any further business for the A.G.M. and there being none declared the official proceedings closed.

Betty Mayne Memorial Lecture

For the remaining evening program and for any newer Society members Dieter Mylius provided some background about the Memorial Lectures. Betty Mayne was a past President of the Society having

become very interested in the Earth Sciences after she retired from a long career in nursing. After joining the Society in the mid 1980s she became Secretary and then President and presided over the Joint Mineralogical Societies' Annual Seminar held in Sydney in 1991 which was very successful due in no small part to Betty's enthusiasm and organizational skills. She sadly passed away only a month after the Seminar had been held. Betty Mayne was interested in all aspects of Earth Sciences and had built up a fine collection of minerals, gemstones, rocks and fossils. Her will stipulated that the collection was to be sold by auction with the proceeds to be divided equally between the Mineralogical Society and the Friends of the Geological and Mining Museum, (FOGAMM society).

The Mineralogical Society set up the Bequest Fund with the money from the auction and placed it in a term deposit keeping the capital intact but with the interest being used periodically to fund or sponsor mineralogical, educational or commemorative projects or to support the purchase of items of mineralogical significance. The fund is administered by the Society Treasurer and periodically sums have been used to donate to the Australian Journal of Mineralogy and to purchase or help purchase notable specimens for the Australian Museum.

In 1992 at the suggestion of the late Professor Laurie Lawrence a series of **Betty Mayne Memorial Lectures** was established with prominent people in the area of mineralogy being invited to give keynote presentations to the Society. The lectures have been held every year since then.

Tonight the Society was pleased to continue the Memorial Lecture tradition with a lecture to be given by Society member and past President Professor Peter Williams. The speaker is a professor of Chemistry at the University of Western Sydney and is currently Chairman of the International Mineralogical Association's Commission on New Mineral Names, Nomenclature and Classification. As recognition of his contributions to mineralogy he is among the people who have had a mineral named after them.

'Gazing into the Mineralogical Crystal Ball. Where is it all going?'

Professor Peter Williams

Professor Williams commenced his lecture by posing the question 'Where is Mineralogical Science going' and advising that unfortunately the answer was not easy to give. Therefore what he wished to do this evening was to give a pastiche of ideas, opinions and impressions that he has gleaned over the last few decades, but particularly over the last few years since he has been the Chairman of the I.M.A. Commission on New Minerals and even more recently since he has taken up the position of principal editor of the Mineralogical Magazine. The lecture was illustrated by projection system with a series of images of minerals, charts and lists.

Initially the Speaker described the functions of the I.M.A. Commission. Information on any new mineral cannot be published without it having been approved by the Commission. Accordingly, all new applications go across the desk of the Chairman of the I.M.A. and then ultimately are voted upon by the I.M.A. members. The executive, comprising the Chairman, two Vice-Presidents and Secretary do not vote. Every country in the World that has a mineralogical society or a geological society that is affiliated with the I.M.A has the right to nominate one voting member. For a worker to get a new mineral approved there would need to be a two thirds majority of the IMA voting members. To get just the name approved a simple majority is required. The worker then has two years within which to publish his or her scientific work and there is a rule about the lapsing of approval if this is not done within the two years.

The number of new minerals being found and presented to the IMA is increasing constantly and more rapidly. A decade ago the commission would have received about 40 to 50 new mineral proposals per year whereas in 2011 there were 117 new proposals that were processed by the Commission. Of these, two were amalgamated into one because they were polytypes, - variations of the same mineral, and three of the others were voted down and rejected. So far this year, 65 new mineral proposals have been processed. Of the 113 approvals in 2011 it was interesting to note where they came from. By country Russia with 28 presented the most followed by the USA and Italy each with 21, Canada nine and Australia with a creditable five new mineral proposals. The Speaker also noted that the names of a small number of mineral workers tended to dominate the proposals for new minerals. In Australia, Stuart Mills had presented the most new minerals compared to the previous year when Peter Elliot had presented more, mainly from Broken Hill.

In considering the areas where apparently the most work is being done to find new minerals, Professor Williams has had to conclude that Russia, Italy and Japan currently have probably the most vibrantly diverse mineralogical community, at least in the academic sense, of any countries in the world. This is a surprise, since most complaints about the work of the Commission come from the United States. The American Mineralogical Society is the largest in the world and possibly they think that they should have the most say about new minerals.

As an aside the speaker referred to the Los Angeles Natural History Museum and recommended that members try and visit. The Museum houses a very significant mineral collection including, prominently displayed in one of the cases, a specimen of pseudo-malachite from the West Bogan mine originally collected by Jim Sharpe many decades ago.

A new mineral which the Speaker considered one of the more unusual approved in recent years was presented as number 42 in 2010 by the Italian mineralogist Luca Bindi. It was the mineral icosahedrite, $\text{Al}_{63}\text{Cu}_{24}\text{Fe}_{13}$. It is a natural metal alloy with an unusual quasicrystalline structure and may be extraterrestrial in origin. Approving a quasicrystalline substance is new to mineralogy since whilst such compounds are known to laboratory chemists none had been found or approved as natural minerals. The unusual features of a quasicrystalline substance are several but one is that the atoms are arranged in a sequence that has five-fold symmetry instead of the accepted two, three, four or six-fold. In order to get the mineral approved by the Commission Professor Williams had to bend the rules a little since for a mineral to be approved it has to have a definite crystal structure in the regular sense. There are only 230 ways to describe crystal structures and the new mineral did not fall into that boundary however it was established that it did occur naturally and the speaker anticipated that other quasicrystals are going to turn up in the future.

Professor Williams then moved on to describe over much of his lecture and in some detail a large number of minerals or groups of minerals which were being examined or re-examined with the aid of constantly-improving technology any number of studies of which might provide new minerals to be approved. A point made a number of times was that there were a number of minerals and situations which were poorly understood and would gradually repay further study. In fact as he said, an incredible amount of work needed to be done on a large number of minerals or groups of minerals.

Some studies had been done on titanium dioxide and related compounds occurring in soil which have been found to be not as refractory or unreactive as previously thought and may move around in the regolith and enter into chemical reactions or associations. The mineral alcaparrosaite $\text{K}_3\text{Ti}^{4+}\text{Fe}^{3+}(\text{SO}_4)_4\text{O}(\text{H}_2\text{O})_2$ from Alcaparrosa in Chile was mentioned and an image of a specimen of the mineral associated with coquimbite, iron sulphate, was shown. Both of these are secondary minerals and may be formed as part of a potential suite of minerals due to acid mine drainage. The speaker then showed a chart indicating what minerals may form according to what the particular concentration of

sulphuric acid may be in a natural acid drainage situation. The suite of minerals that may be involved in an acidic environment, particularly if titanium was present, was an area of mineralogical chemistry waiting to be studied.

Professor Williams has spoken at a previous lecture about the suite of secondary bismuth and molybdenum minerals being identified from Kingsgate some of which have had significance as catalysts in certain organic chemical processes, molybdenum occurring in 5⁺ or 6⁺ oxidation states. A number of new minerals have been identified from bismuth/molybdenum deposits in Eastern Australia and elsewhere and the speaker expected that new finds and approvals would continue. A mineral found at Kingsgate by Jim Sharpe and intended by him to be named kingsgateite was described first by Paolo Orlandi in Italy who also found it in Sardegna and named it gelosaite, $\text{BiMo}^{6+}_{(2-5x)}\text{Mo}^{5+}_{6x}\text{O}_7(\text{OH})\cdot\text{H}_2\text{O}$.

Studies on the group of minerals including atacamite and paratacamite has turned up new associated minerals including gillardite $\text{Cu}_3\text{Ni}(\text{OH})_6\text{Cl}_2$ and again the speaker expected that more minerals in this group would be identified. In fact Professor Williams challenged any members who thought that they had specimens of these minerals and cloncurryite in their collections to examine them more closely since there were likely to be more minerals present.

A fundamental factor in respect to finding new minerals is obviously the constantly improving technology and methods of identifying smaller and smaller specimens. As an example of some recent discoveries the speaker described two new minerals which unfortunately cannot realistically be collected because specimens found so far have been too small to be seen. These are murchisite, chromium sulphide, Cr_5S_6 , which was found in the Murchison meteorite which landed in Victoria in 1969 and cadmoxite, cadmium oxide, CdO which has been submission number 37 this year. Neither mineral can be seen with the naked eye being about $\frac{5}{100}$ ths of a millimeter across. Workers have identified the minerals by electron micro-probe analysis and other methods and cannot for instance state what colour they may be because they are too small to be seen but have otherwise commendably managed to adequately describe the chemical compositions and crystal structure and obtained I.M.A. approval.

In conclusion Professor Williams expected that there would continue to be a flow of new mineral discoveries consistent with constantly advancing identification technology and work being done. He finally gave as his opinion that in taking into consideration many of the points that he had been speaking about this evening mineralogical science is as vibrant as or even more vibrant than it has ever been since Mineralogy was called a discipline.

FORTHCOMING EVENTS

GEMKHANA 2012

In the Showground at Mudgee over the long weekend Saturday, September 29th 10.00am-5.00pm;
Sunday, September 30th 10.00am-5.00pm; & Monday, October 1st, 9.00am to midday.

'We are returning to Mudgee Showground this year'.

The Gemkhana is the Annual Gem & Mineral Show and Competition of lapidaries
with entries from all across NSW and quite a few from interstate.

Presented by the Gem & Lapidary Council of NSW Inc.

Dealers and tailgaters will attend. We will have children's activities. Refreshments will be available.

There is wheelchair access and plenty of parking. On-site camping is available.

Contacts are :- Una (Co-ordinator) 02 4759 2440; Arthur (02) 4572 5812; Marilyn 02 9635 8218.
E-mail to : -gemplapidarycouncilnsw.org.au
or Website <http://www.gemplapidarycouncilnsw.org.au/gemkhana.html>

ANNUAL GEM FESTIVAL by the CENTRAL COAST LAPIDARY CLUB

Saturday & Sunday October 13th & 14th at the Mingara Recreation Club,
Mingara Drive, off Wyong Road, Tumbi Umbi.
Saturday 13th 9.00 am to 5.00 pm, Sunday 14th 9.00 am To 4.00pm
Club Competition and dealers selling tools and equipment.
Beads, Crafts, Minerals, Faceting And Cabbing Materials.

GEM SHOW 2012

By the Northern Districts Lapidary Club
Theme: 'The Origin of Gemstones'

Friday, Saturday & Sunday, the 26th, 27th & 28th of October 2012.
In the Beecroft Community Centre, Cnr Beecroft & Copeland Roads. Beecroft.
Gems, Jewellery, Minerals, Fossils, Slabs, Lapidary Books, Machinery,
Workshop Demonstrations, Plants, Free Light Refreshments.
Small entry charge. Inquiries to : -
www.ndlapidary.org.au Telephone 9484 0014 or 9878 4073

WINDSOR JEWELLERY, BEADING, GEM & MINERAL SHOW

Saturday & Sunday, November 24th & 25th 2012
In the Windsor Function Centre on the corner of Dight & Macquarie Streets, Windsor.
Next door to Windsor Public School.

Saturday open from 9.30 a.m. to 5.00 p.m. & Sunday from 9.30 a.m. to 4.00 p.m.
Admission \$5, children \$1. Light refreshments.
SALES of jewellery, gemstones, beads, opals, mineral specimens from all over the world,
tools and equipment for lapidary and beading work, metaphysical and healing crystals.
Inquiries to Peter Beckwith on 0412 333 150.

GEMBOREE 2013

AUSTRALIA'S 49TH NATIONAL GEM AND MINERAL SHOW

Easter 2013 from the 29th March to 2nd April 2013

In the Murray Bridge Showgrounds on the Princes Highway at Murray Bridge, South Australia

Hosted by the Gem & Lapidary Clubs Association of South Australia Inc under the auspices of the
Australia Federation of Lapidary and Allied Crafts Association Inc (AFLACA).

Gemboree 2013 Activities

'Trade Dealers. A huge range of dealers specialising in everything from gems and minerals to fossils and findings have been invited to attend Gemboree 2013.'

'Micro-Mounting. This year in South Australia we have provided a specific location for those who undertake the art of micro-mounting.'

'National Gem and Mineral Competitions. Gems, jewellery, lapidary and allied arts and crafts together with fossils and minerals will compete for national honours.'

'Field Trips. Visits are being planned to fossicking sites and to specific sites for detectors and treasure-seekers.'

Enquiries to :-

The Gemboree Convenor – *sagemboreeconvenor@gmail.com*

Rennie D'Arcy on mobile 0412 414 129 or e-mail - *rennie.darcy@three.com.au*

Bookings and Tailgating Co-Ordinators

Anne Armstrong, e-mail *anne.armstrong38@three.com.au*

or Ian Everard by e-mail *ieverard@bigpond.net.au* or telephone (08) 8251 3348

Murray Bridge Visitor Information Centre. Telephone (08) 8539 1142

Website *www.murraybridge.sa.gov.au*
