

# ARKAROOLA WILDERNESS SANCTUARY



## From the ARK

NEWSLETTER NUMBER 14

AUTUMN/WINTER 2011

In his short story *Winter Count*, North American writer Barry Lopez explores how, in oral traditions, Indigenous peoples remember and catalogue the past. With no enduring hard copy or digital files, how were specific years and the order in which they occurred, remembered over time? Lopez tells how Native American Indians filed their winters in the archive of memory, by marking them with events of significance. The year the buffalo never came. The year stars fell to earth. The year the geese flew over in a storm. In an age where memory relies, increasingly, upon external retrieval rather than internal reflection, how will we remember past years and the events that differentiate them? Will the winter of 2011 count as the year when the Rann Government ended years of uncertainty and protected Arkaroola Wilderness Sanctuary, in perpetuity, against mining and mineral exploration?

In this issue of *From the Ark*, as the winter of 2011 begins, we celebrate the resilience of an iconic landscape that, once again, is throbbing with new life, a landscape that must be protected.

To download *From the Ark* visit our Web site at [www.arkaroola.com.au/breakingnews.php](http://www.arkaroola.com.au/breakingnews.php)

### A MESSAGE FROM MARG

I must have a great deal of Griselda's Scottish blood. I tell myself that I am not superstitious, yet I am loathe to make predictions, just in case .... However, things are looking up. Since July 2010, the Premier, Mike Rann, the Minister for Environment, Hon. Paul Caica, and Paul Holloway, the past Mining Minister, have visited us. A group of State Liberal politicians led by the Leader of the Opposition, Isobel Redmond followed. They all came to see what it is that makes Arkaroola so special for so many people. In November the State Attorney-General, Hon. John Rau also visited Arkaroola. Last month Minister Caica returned to begin a consultation process aimed at finding a suitable method of protection for the Sanctuary. We want to thank all Arkaroola's supporters for highlighting Arkaroola's plight and encouraging these politicians to come and find out what we have all known for so long ... Arkaroola is irreplaceable.

Marg



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# ARKAROOLA WILDERNESS SANCTUARY

## NEWS FROM THE ARK

### ALL THE RIVERS RUN



Arkaroola's resident eagles would have observed something extraordinary in the last weeks of Summer and first weeks of Autumn 2011. With their bird's eye view the wildu\* would have seen water flowing across the sanctuary, from Yudnamutana Gorge to Arkaroola Village.

Arkaroola's creeks, large and small, captured and conveyed La Niña's gift, which came regularly, like a monthly pledge. 426.5 mm (about seventeen inches on the old scale) fell over Arkaroola during 2010 with a further 350 mm in the first quarter of 2011. In all that time only one destructive rainfall event occurred, causing extensive damage to Arkaroola's track network on March 10. When all the rivers run for more than a few brief hours, wildly at first, and then gently for weeks or months, life returns to the land in a spectacular affirmation of renewal.

\*Wildu is the Adnyamathanha word for eagle

**Top:** Arkaroola Creek flowing through Tillite Gorge in April 2011

**Bottom:** Overflow from Elva Dam near Arkaroola Village on March 10th 2011



### POETRY IN MOTION



On the evening of June 8, 2011 the voices spoke. A motion put before the Legislative Council by Mark Parnell, Leader of the South Australian Greens, calling upon the state government to urgently guarantee permanent protection for Arkaroola Wilderness Sanctuary, was carried.

In February, the Premier Mike Rann announced that the South Australian government *"will be considering all of the available options to preserve the iconic Arkaroola Sanctuary."*

The State Government is currently consulting with Arkaroola and other stakeholders as it explores protection options. We anticipate that the Premier will make an announcement about Arkaroola's future before spring.

**Top:** South Australian Attorney General, John Rau, on the Ridge Top Track December 2010

**Below:** Mark Parnell at Split Rock on Arkaroola's Ridge Top Track, 2008

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# ARKAROOOLA WILDERNESS SANCTUARY

## NEWS FROM THE ARK

### ARK UP AND MAKE A DIFFERENCE



When it comes to Arkaroola's long-term protection we hold the sanctuary close to our hearts. We're a friendly mob, but threaten our home and we're going to ark up!

The Arkaroola community is an eclectic mix of backpackers, grey nomads, students, teachers, pilots, nurses, publicans, ecologists, guides, cooks and builders. Some of us have been here for years. Others sign up for the season and move on. But many of us come back. What we share is a deep love of this place. So anything that seeks to alter the values, and threaten the future, of our stunning workplace and home is likely to stir fire in the Arkaroola belly.

We have a lot of interaction with our guests and with few exceptions, they share our passion about protecting Arkaroola. Guests and staff alike feel it is a privilege to have access to such a wild and stunning landscape. When you value something deeply you should be prepared to fight for it and we are! T shirts and stickers, letters to politicians and newspapers, these are our armoury. Join us and *Ark Up*.



*Ark Up* T shirts are available from Arkaroola for \$15 plus postage

### A NEW LOOK FOR THE LODGE



More a 'remake' than a 'make-over', Greenwood Lodge is undergoing a transformation. The Lodge's Germein Lounge will be redeveloped over the next twelve months as a meeting room, lecture hall, lounge and interpretive space.

The first guest accommodation to be built on Arkaroola in 1968, Greenwood Lodge has hosted field naturalist clubs, school groups, bushwalking clubs, and budget travellers for forty years. Filmmaker Rolf de Heer used the building for a special screening of his movie *Tracker*, filmed on Arkaroola in 2002.

An inner wall providing a buffer between motel rooms and the central lounge area, has been added. A redefined lounge now features two 6 X 2 metre panoramas by acclaimed landscape photographer Peter Macdonald. Interpretation will be installed at its western end with a dedicated, dual-purpose dining / lecture area at the eastern end. Landscaping between Greenwood Lodge and the swimming pool has commenced. A geological garden will be created, with representative flora from several geological formations found on Arkaroola Wilderness Sanctuary. Flinders Ranges panorama artist and painter-decorator Jeff Morgan, with his son Alex, can be seen above painting the new inner wall of Greenwood Lodge.

*It is a stunning landscape, rich in flora and fauna. I found its beauty to be compelling.*

The Premier Mike Rann

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# ARKARoola WILDERNESS SANCTUARY

## PLANT PROFILE

### BOOM 'n' BLOOM

You could call it a mega event, an ecological blockbuster, not seen for thirty-five years. A lingering La Niña that dumped metres of water in parts of Australia over summer, destroying lives and property, brought regular rainfall to Arkaroola for eighteen months. It came with a bonus of back-to-back wet summers. Such events, rare in the northern Flinders Ranges, trigger large scale recovery and regeneration. This is when plant and animal populations rebuild as the boom-bust pendulum continues to swing through time.

Arkaroola is buzzing with new life. The canopies of trees and shrubs have bulked up, the branches of many bent low under the weight of an extraordinary bud load. A new generation of silver wattles has appeared, shin-high recruits in places where the adults had vanished a decade ago, completing their life cycle and dying, but leaving seed in the soil, waiting for La Niña's return. Groves of threatened slender bell-fruit trees and knee-high spidery wattle recruits have made prodigious growth in just one year. River red gums recover as new life sprouts from dormant buds on seemingly lifeless trunks while a new cohort of seedlings pushes up through creek gravels where water has flowed often over the last year and a half. New generations of native pines and mulgas, both long-lived perennials, are anticipated, following optimum conditions for germination and establishment. Forbs, ephemerals and grasses cover the ground, broadcasting their seed, food for litters, clutches and colonies of creatures. As this rapid-response plant material breaks down, assisted by termites, it will add nutrients to soils and help to sustain longer lived plants through the next bust back to the next boom 'n' bloom.



**Top row (L to R):**

A stand of young mulga near Welcome Pound  
Threatened Slender Bell Fruit trees on Arkaroola  
Spidery wattle with prodigious new growth

**Middle row L to R):**

Spidery wattle seedpods  
River red gums with strong epicormic growth  
Spidery wattle seedlings near Oopaminda Trail

**Bottom row L to R):**

Silver wattle recruit near Bolla Bollana Spring  
Curly mallee heavy in flower  
Curly mallee recruit near the Pinnacles



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## CONSERVATION & RESEARCH FROM THE ARKHIVES

### NAT-URE STUDIES



Natalie Andrews is interested in all things that hop, crawl, fly, burrow and slither. When she is not checking in guests, Arkaroola's receptionist / naturalist is out and about exploring the natural world. Nat is about to commence a two year study of Arkaroola's small mammals.

A Zoology graduate from the University of Aberdeen, Scotland, Nat is no stranger to Australian mammalian fauna. Fascinated by platypus from the age of six, Nat spent some time working with Dr Tom Grant on platypus research at the University of Sydney. For the past three years she has been involved in a Bandicoot Study in the Mount Lofty Ranges. Nat has honed her animal handling skills on quarterly trapping surveys conducted as part of the joint University of Adelaide / Zoos SA project.

With fellow naturalist and tour driver Ryan MacMillan, Nat will collect baseline information about Arkaroola's small mammals. Four sites in suitable habitats along southern and south-eastern areas of Arkaroola Wilderness Sanctuary will be sampled quarterly. The deeper and more productive soils of this section of the sanctuary are more likely to support populations of planigales, dunnarts, hopping mice and native mice. Taking advantage of the best conditions in thirty-six years, Nat and Ryan will sample habitats in four different vegetation associations on a variety of soils.

Nat and Ryan will use camels to transport equipment into areas of optimum habitat, that cannot be accessed by vehicle. They will incorporate some survey work as part of a new camel trek experience, to commence in July. For more details go to [Product Information](#) on page eight.

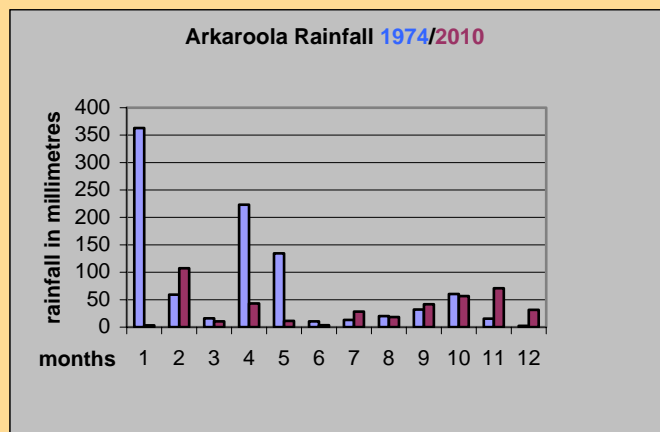
### REMEMBERING '74

"We haven't seen it like this since '74 " has become something of a chorus line for long-term residents of the Flinders Ranges. So what made 1974 the benchmark year?

Rainfall figures can tell us a lot about how natural systems work in semi-arid and arid areas. Although significant, it is not necessarily the amount of rain that determines how useful an event may have been. The intervals between rainfall events, and the time of the year when falls occur, may be just as significant as rainfall totals. However, it is the big rain events that drive regeneration and recovery on Arkaroola.

Monthly rainfall data has been recorded for Arkaroola since January 1938. When one looks at the data, it becomes clear that rainfall abundance and scarcity is frequently packaged as wet or dry episodes spanning a number of years. And it is this packaging that makes 1974 and the decade of which it was a part, most extraordinary.

368 mm of rain fell over Arkaroola in January 1974. By December, 949.4 mm or 38 inches had been recorded for this record-setting year. The '74 rains followed an impressive year in '73 when 490.7 mm was recorded. '73 and '74 were part of a decade-long package of 'good years' which saw Arkaroola's ten year average rise from 257 mm to 440 mm. Back-to-back wet summers supported by regular rainfall through all seasons triggered a decade of regeneration of long-lived perennials like mulga, native orange and native pine. Plants, and the creatures they supported, flourished during the most fecund decade since Europeans came to the Flinders Ranges in the 1850s.



**2011 RAINFALL**  
to March 31  
**350 mm**

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## CREATURE FEATURE

### WHAT MOUSE IS THAT?

Correctly identifying small mouse-like creatures in a season like this one, can be much more challenging than Million Dollar Drop, Eddie Maguire's latest million-dollar quiz show.

Spotted by torchlight or in car headlights, scurrying across paths and tracks, those small, pointy-faced, grey-furred, fast-moving creatures all look much alike. And should you try to test your ID skills by getting up close and friendly, they can all deliver a memorable bite.

Brilliant conditions over the past six months have triggered a breeding frenzy among planigales, dunnarts, hopping-mice, native mice and introduced house mice. For these opportunists, food and fecundity go together like coffee and cake. They have high reproductive rates, relatively short gestation periods, and can produce a succession of large litters when food is abundant.

So what mouse IS that? Here are a few clues to help you. First clue: they aren't all mice. Planigales and dunnarts are mouse-like carnivorous marsupials. Unlike rodents, they have a jaw full of very sharp teeth for tearing apart the chitinous bodies and wings of insects. Rodents have just one pair each of upper and lower incisors. They gnaw at, rather than rip up, their dinner.

Second clue: size and shape. Planigales are tiny. A nine-gram planigale would be a monster. They typically weigh in at about six grams, lighter than the average 'mouse'. Dunnarts have short fat tails, and pointy, fox-like muzzles. But it is their prominent eyes and large ears, adapted for nocturnal operations, that clearly distinguish them from mice.

Third clue: Watch how they move and you will know at once if you have been lucky enough to observe a hopping mouse. It's all in the name!

Distinguishing house mice from native mice is the real challenge. Fourth clue: if all else fails do the sniff test. Native mice do not share the distinctive odour of *Mus musculus*.



Stripe-faced dunnart (above)  
Dusky Hopping Mouse (inset) *Complete Book of Australian Mammals*, Strachan

## GEONOTE

### GOBSMACKING GEOLOGY



Geoscience teachers have been bringing their students to Arkaroola for more than sixty years. In May, the Minerals Council of Australia returned again with forty Honours and Masters students from six Australian universities to look at Arkaroola's extraordinary geology.

An excerpt from a letter of thanks to Marg, Doug and the Arkaroola Staff is reproduced below.

*"Arkaroola once again dazzled us with the diversity and significance of its geology and with its stunning scenery. This has confirmed in our minds the importance of Arkaroola as a natural laboratory for the study of a range of Earth processes and on the importance of field training (rocks, rocks and more rocks!) in the development of the next generation of Australian geologists. As you know, our course closely examines the ancient and modern mineralising systems that are exposed so well in Arkaroola and on the techniques required to explore for them. However, during the week of our stay the students are also exposed to the geological evidence for profound and ancient climate change; to sediments deposited during the destruction of one supercontinent (Rodinia) and deformed during the amalgamation of another (Gondwana); to an 800 million year record of emerging life in the Earth's oceans; to a dissected fossil hydrothermal system; and (of surprise to many) to an ancient landscape being constantly rejuvenated by dynamic and youthful tectonic processes. Arkaroola also has deep relevance to these students, as it highlights the delicate balance between environmental, cultural, social and economic concerns that they must appreciate and address in their future careers in the minerals industry."*

David Giles  
Steven Hill  
Stephen Hore  
Minerals Tertiary Education Council

To join our mailing list just email us at [marketing@arkaroola.com.au](mailto:marketing@arkaroola.com.au)  
For an informed commentary on protection issues visit <http://unknownsa.blogspot.com>

# ARKAROOLA WILDERNESS SANCTUARY

## TOO PRECIOUS TO MINE

### ICONIC? BLAH!

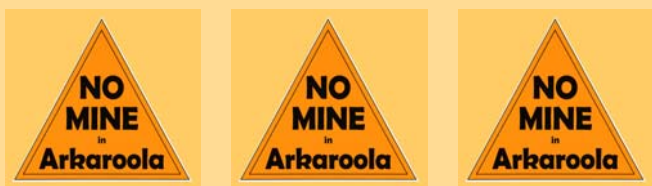
What's so unique about Arkaroola Wilderness Sanctuary, that warrants 'special intervention'? Nothing at all according to Marathon Resources.

It took nine months, but Mark Parnell succeeded in having Marathon Resources' *Seeking a Balance* submission released into the public domain. Failing to get access to the document under Freedom of Information, the South Australian Greens Leader lodged an appeal with the State Ombudsman. Following a lengthy investigation, the Ombudsman determined that the submission could be released with sensitive commercial information removed. Never intended for public scrutiny, the document reveals Marathon's rejection of the values identified and applauded by Arkaroola's advocates.

In its lengthy submission Marathon argued that "the special pleading" of those who sought to see Arkaroola protected, (eminent scientists and institutions included) was baseless. "Marathon considers, however, that the frequent description of Arkaroola Wilderness Sanctuary (legally a pastoral lease) as "iconic" is inappropriate and misleading". Marathon insisted that it was Arkaroola's founder, Reg Sprigg, who was the icon, not the property that he and his family have spent the past forty years protecting through strictly controlled tourism and applied conservation. Marathon described Arkaroola as a landscape degraded by past mining activities, pastoralism and feral animal impacts. Observations made by Reg Sprigg shortly after the record rains of the early 1970's were dredged from old documents to support the case for exploration. However, any optimism Reg had about the recovery of tracks and drill sites was to be short-lived. Scarring around Mt Gee and the Armchair basin remains visible forty years on.

Marathon's submission only become available to its shareholders after the Ombudsman's ruling in March. Months earlier in a statement to the ASX the company advised that shareholders did not need access to the submission as it contained nothing significant. Yet by its own admission Marathon Resources stated that it was unlikely the company would satisfy Environmental Class A criteria under the provisions of the Development Act unless it could prove up a very large ore deposit, of paramount importance and in the national interest.

A string of tourism awards, the unequivocal results of media polls and submissions, determinations by experts, and the premier's own words, have all affirmed the iconic status of Arkaroola. One wonders whether Marathon's shareholders approve the company's 'iconic ?blah!' attitude. Perhaps they have had insufficient information to appreciate that Arkaroola is **too precious to mine**.

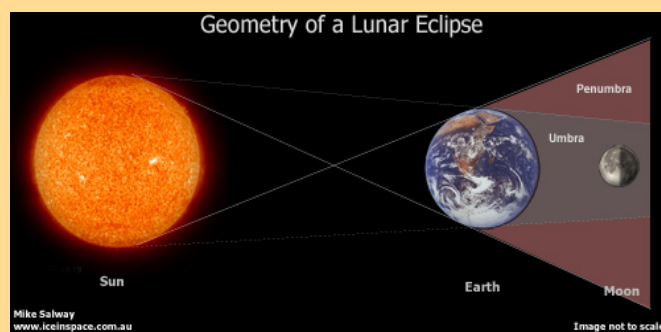


## GALACTIC GOSSIP

### LUNAR LITERACY

Every subject has its own specialised language. From dog breeding to nuclear physics, it's the terminology that sorts out the practitioners from the rest of us. The language used by eclipse hunters is no exception.

Few of us seek to understand the Danion Scale of Lunar Brightness, Bailey's Beads or Sans Series 130. But a bit of lunar literacy will help us to appreciate the significance of this week's total lunar eclipse. Total lunar eclipses occur when the Sun, Earth and Moon are in perfect alignment, the Moon is full and passes through the darkest part of the Earth's shadow. All direct light from the Sun is blocked during a total eclipse. When the moon passes through the Earth's outer shadow, some light remains visible, and a partial eclipse occurs.



The Earth's shadow is "composed of two cone-shaped components, one nested inside the other. The outer or penumbral shadow is a zone where the Earth blocks part but not all of the Sun's rays from reaching the Moon... The inner or umbral shadow is a region where the earth blocks all direct sunlight from reaching the Moon."  
[www.mreclipse.com](http://www.mreclipse.com)

An Umbral Magnitude of 1.7 probably does not mean much to most of us. However, this obscure value will mean a sleepless night for lunar eclipse aficionados around the world on the night and early morning of June 15 and 16. In layman's speak this week's UM 1.7 event will be one of the darkest and longest total lunar eclipses ever observed. Umbral Magnitude is a numerical value for how much of the Moon's diameter is in the umbral shadow at maximum eclipse. As with all scales of magnitude, this provides a relative value for comparing like events. The duration of the eclipse, from start to finish, and the interval that the Moon remains in total eclipse before moving back into the partially lit penumbra is also an important value.

In South Australia, the eclipse will commence at 3.52 am on June 16. Dawn will arrive before the event is over. But have your cameras ready because moonset may be spectacular. Scattered light refracted from the Earth's atmosphere may paint the moon with stunning orange and reddish hues. The Chilean volcano Puyehue has erupted on cue, spewing volcanic ash into the Earth's atmosphere, and increasing the probability of a pre-dawn shadow play extravaganza.

For further information about eclipses visit the following websites:  
[www.eclipsegeeks.com](http://www.eclipsegeeks.com) <http://eclipse.gsfc.nasa.gov>

# ARKAROOLA WILDERNESS SANCTUARY

## PRODUCT INFORMATION

### FLINDERS & BEYOND CAMEL TREKS



Arkaroola tour guide Ryan MacMillan and naturalist Natalie Andrews with one of their camels, gentle Mona.

Ryan MacMillan and Natalie Andrews have packaged their shared passion for wildlife research, camels and Arkaroola in a new product they will launch at Arkaroola, in July 2011. *Flinders and Beyond Camel Treks* will provide overnight and extended day trekking experiences with opportunities for participation in small mammal surveys around Arkaroola's south-eastern boundary. Adventurous trekkers will have the option of travelling to or from the remote camp sites by helicopter.

Ryan has trekked across most of South Australia's deserts and has worked with the South Australian Museum and PIRSA supporting scientific expeditions into remote locations. In October Ryan will lead the South Australian Museum's Waterhouse Club on a seven day trek through the northern Flinders Ranges.

For further information, prices and bookings email Ryan and Natalie at [flindersandbeyonddcameltreks@hotmail.com](mailto:flindersandbeyonddcameltreks@hotmail.com)

## FROM THE ARK POSTCARD



*Advocacy from the Swiss Alps (thanks Sam and Alice)*

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