



ACROSS THE

OUTBACK



Participants in the first EMU™ field day on Todmorden Station

Celebrating EMU™ achievements

After six years of investment, the Ecosystem Management Understanding (EMU)™ program has been finalised in the SA Arid Lands region. This unique property management process now operates on 26 properties across the region (a geographic area equivalent to 11 per cent of the region) and its benefit for sustainable land management in the region will continue to expand and live on. The Presiding Member of the SAAL NRM Board, Janet Brook reflects here on its achievements and legacy.

EMU™ commenced in the region after a chance encounter between Coober Pedy-based NRM Officer Janet Walton and EMU™ Director Hugh Pringle at the Australian Rangelands Conference in Charters Towers in 2008. Janet had presented on the Kingoonya NRM Group's efforts at raising awareness about Western Myall dieback – noting her passion for working with land managers, Hugh

sought her out to talk about his method for working with land managers to review landscape function, condition and trend.

The following year Hugh was invited to speak about the EMU™ process at the Marla-Oodnadatta NRM Groups' "Grass with Class" workshop.

At the same time, the Board's Water Projects Officer Henry Mancini also saw

value in bringing EMU™ to the region and put up an application to the Board to co-fund a pilot study with Douglas Lillecrapp on Todmorden Station with the Centralian Land Management Association.

In the six years that have followed, the SAAL NRM Board has directed Australian Government funding to expanding EMU™ so that it now operates on 26 working properties across the region, including seven in the Marla-Oodnadatta district, four in the Kingoonya district, six in the North Flinders district, six in the Gawler Ranges, two in the North East Pastoral district and one in the Marree-Innaminka district.

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PASTORAL BOARD 2015

MEETING 149
19 August

MEETING 150
22 October

MEETING 151
10 December

SNAPSHOT OF CURRENT LAND USE

In August 2010 we reported that there are a total of 328 pastoral leases in SA's rangelands and 220 of these operate as pastoral stations. Today, there are 320 pastoral leases and 216 of these operate as pastoral stations.

While a growing number of lessees now undertake tourism operations to supplement and support their pastoral enterprise, only one lease (Arkaroola in the north Flinders) has been formally changed from pastoral use to tourism purposes.

Seventeen leases have been purchased with the intention of using them for conservation purposes, an increase of two since we last reported in August 2010.

Some pastoral lessees have placed a Heritage Agreement on a specific part of their lease, usually small areas ranging from a few square kilometres to tens of square kilometres.

Changing your pastoral lease conditions

Jeff Stringer and Lynette Taylor

Transfers of ownership and changes to land use are carried out by the Pastoral Unit and, with four pastoral properties changing hands in the last 12 months – Parcoola, Coondambo, Wintinna and Mabel Creek – it's timely to remind land managers of this process and other lease conditions.

Pastoral leases in South Australia are owned by many different organisations, from the traditional pastoral company or family run pastoral enterprise (eg S Kidman & Co) to conservation bodies (eg Bush Heritage, Nature Foundation, Australian Wildlife Conservancy), and mining and petroleum companies (eg BHP). The latter generally sub-lease the runs for pastoral purposes.

Every year the Pastoral Unit deals with various changes to pastoral leases including transfers of ownership, sub-leases (where one lessee sub-lets to another), the creation of easements (eg for a water pipeline or power line), and consent to mortgage.

In the last 12 months, the Pastoral Unit processed 28 applications of this nature.

These activities are carried out under delegation of the Minister for Sustainability, Environment and Conservation under the *Pastoral Land Management and Conservation Act 1989* which provides for the management and conservation of pastoral land in South Australia.

Changes to land use

Changes to land use (or tenure) are also possible – for example, a lessee may apply to change the land use from pastoralism to a cultural, tourism or conservation use – but only after formal application and with consent from the Pastoral Board.

Land managers may also apply to change land use on only part of a lease; however, any portion of the lease retained for pastoral purposes must be suitable for running livestock.

Regardless of land use, the lease remains a pastoral lease and the land must be well managed and its resources maintained.

The rate of annual rental payable for the lease is dependent on the purpose of the lease and whether it is used for pastoral, conservation or tourism purposes or subject to a Heritage Agreement.

Further information

If you are contemplating changes to your pastoral lease or need further information, contact Lynette Taylor, Pastoral Lease Operations and Tenure Officer 8463 3281

Pastoral Board, Natural Resources SA Arid Lands



Moolooloo Station



Pastoral Board retained – and now seeks your input

Chris Turner

Pastoralists, industry organisations and other interested parties are being asked how they can improve the Pastoral Board's communication, policy making and operations.

The call comes after the Parliament of South Australia debated and passed an amendment to the Boards and Committees—Abolition and Reform Bill 2014 on 4 June meaning the Pastoral Board will be retained.

The move ends nine months of negotiations between major parties and industry groups.

Pastoral Board members are now looking to move forward and will be seeking to broadly canvas anyone with an interest in the pastoral areas of South Australia inviting them to offer their opinions on how the Board should carry out its functions.

It is hoped that all comments and opinions can be gathered and collated by September 2015 with the Pastoral Board discussing these suggestions at its bimonthly October 2015 meeting.

The Pastoral Board met at Wilpena in mid-June where Livestock SA representatives will provide their input while a public forum that evening will involve discussion with pastoralists and other interested people.

It is hoped that all comments and opinions can be gathered and collated by September 2015 with the Pastoral Board discussing these suggestions at its October 2015 meeting. The outcomes will be reported in future editions of *Across the Outback*.

Have your say

Opportunities to have your say will be promoted through a variety of means including surveys, regional public meetings and direct contact from the Pastoral Board. For further information contact Chris Turner, Pastoral Unit Leader on 8124 4957 or 0418 812 484 or keep an eye on www.naturalresources.sa.gov.au/aridlands

Pastoral Board, Natural Resources SA Arid Lands

RAINFALL ROUNDUP

Jeff Stringer

Since January's above average rainfall – up to 200mm on some properties – falls have been scattered in the region.

Some outback roads – including the Oodnadatta Track – were closed for 4-5 days in the Marla Oodnadatta and North Flinders districts as storms moved across the state from the north-west of South Australia during late May.

Recordings were variable but the highest rainfall appeared to be Marla 40mm, Mount Barry Station 36mm, Leigh Creek 34mm, Arkaroola Reserve 40mm, Commonwealth Hill Station 32mm and Coober Pedy 25mm.

This quick dump of heavy rain will primarily benefit stock water reserves, but will also provide an annual response from winter grasses and forbs.

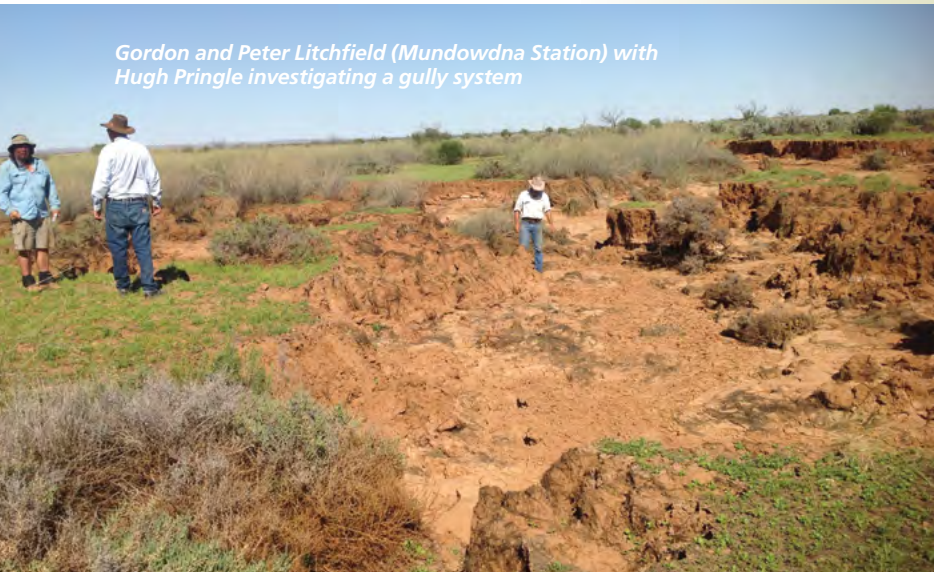
Meanwhile, the North East and Eastern districts were the only parts of South Australia to receive a significant rain in mid April from a southerly change, with Gluepot Reserve receiving 65mm, Sturt Vale Station 100mm, Yarramba Station 27mm and Mooloolooloo Station 25mm. This was a welcome addition to the average 50-75mm these districts received in January.

The response of vegetation to this steady, soaking rain will be of a short term nature and annual based but an excellent boost for stock feed reserves.

Unfortunately it appears that the Gawler Ranges and Kingoonya districts missed out again after receiving only patchy rain in January.

This data on significant rainfall events in the region is obtained using Bureau of Meteorology data, from key pastoral station records and from annual stock return data and assists the Pastoral Board in monitoring land condition throughout the region.

Natural Resources SA Arid Lands, Pastoral Board



Gordon and Peter Litchfield (Mundowdna Station) with Hugh Pringle investigating a gully system



Mapping exercise with Alastair McTaggart and Catherine Hollingsworth (Moonaree Station), Hugh Pringle and Lisa Taylor

Legacy

Participating land managers have reported a variety of benefits in their involvement in EMU™ noting its usefulness in improving their skills in landscape scale management, property mapping, prioritising issues, planning grazing to positively use landscape diversity, identifying erosion, and overall improvements in understanding how to manage some very complex land management issues.

EMU™ participants state that they are deriving better productivity from their land – which means money in the bank – while also improving the natural resource base and ecological values of their properties, as they work to restore the landscape’s natural function – particularly water infiltration and positive soil moisture balances.

All the land managers have devised and are actioning their own property management plans, with time frames linked to resource availability and ranging from a few months to 10 years or more.

Seeing even broader opportunity, many of the land managers have started to look beyond their own property boundaries to work with their neighbours to manage their land at a catchment scale.

For example, the Marla-Oodnadatta NRM Group has been working with four properties (The Peake, Allandale, Evelyn Downs and Mount Barry) to contain the spread of Mimosa Bush (*Vachellia farnesiana*) in the Peake Creek and lower Neales River catchment.

In the North Flinders, Willow Springs, Wirrealpa and Martin’s Well are working on complementary projects that deliver catchment scale benefits.

Feedback

One of the best advertisements for EMU™ is that it has spread across the SA Arid Lands region in a few short years, with very little marketing and principally relying on word of mouth.

Here’s some of the feedback participating land managers have provided over the years:

- Through EMU™, I have become more aware of how land functions as whole ecosystems
- It’s been quite amazing – looking at the whole property rather than paddock by paddock
- Since we’ve been involved we’re already seeing impacts and it’s only been 12 months
- ‘[I have] increased confidence planning interventions’
- Some of the erosion processes are so obvious I’ve never seen them – I was shocked when they were pointed out.

And here’s a sample of some of the comments land managers made when asked to describe what has been most useful about EMU™:

- Identifying our most valued portion of the property and ways of managing
- Opportunity to consider additional expertise to help with priority area of most significance for sustainability
- Stops one from becoming complacent and ignoring problems with the environment especially when our lives are so busy
- Learning landscape knowledge including water drainage and catchment
- Managing monitoring points for management purposes for the future to protect threatened fauna species
- Documentation of many years of accrued information.

EMU™ has been very successful in building relationships, improving landholder knowledge and investing in on-ground works to increase long term sustainability and productivity for pastoralists in the region.

This leaves the program well positioned to take advantage of future resource opportunities, whether these be through the Australian Government or elsewhere.

The Board places a high priority on investing in programs that support land managers with property management planning and we will continue to look at options to build on the EMU™ legacy.

For pastoralists across the region, our programs will continue to maintain a focus on supporting improved productivity through sustainable land management. These programs include best practice grazing management, pest plant and animal control, enterprise diversification and carbon market opportunities.

On behalf of the SA Arid Lands NRM Board I thank Hugh Pringle, Janet Walton, and the various contractors and Natural Resources SA Arid Lands staff who have been involved in EMU™.

Further information

For further information about EMU™ contact the Sustainable Industries team, Natural Resources SA Arid Lands 8648 300.

SAAL NRM Board, Natural Resources SA Arid Lands, Australian Government



Wirrealpa: EMU™ in Warren's words

Warren and Barbara Fargher own Wirrealpa Station, a 1500 square kilometre property on the eastern edge of the Flinders Ranges which produces wool, lamb and beef and provides accommodation for tourists. Warren was the star of a video in 2012 where he talked about his experience running EMU™ on his property. He kindly allowed *Across The Outback* to share his words here.

We've been doing a lot of rehabilitation works for a number of years – since about 1968 – and Barbara...did a...rangelands management course through Queensland University. When the offer came up for expressions of interest [in EMU™] we thought that we might as well see what happens. It's just an extension of what we've been doing for a lot of years.

It's been quite amazing looking at the whole property rather than just paddock by paddock or area by area and learning a lot more about how it's been running and how it should be run. We had the satellite images for a start which was a bit of a shock because I'd never looked at the place via a satellite before, and then from an aircraft looking at the same sort of areas on a...smaller scale...and then [we went] out in the vehicle and had a look from the ground...[T]hose three processes are as important as one another.

Probably [one] of the most important things is the erosion process that has been going on...some of them are so obvious that I've just never seen them from the air. I've been flying around for a lot of years and never noticed it until it was pointed out. That's... the biggest shock.

At the moment we're concentrating on trying to hold the water back, trying to spread it so we're building a series of banks that slow it down... [A]part from that, we're working on our road system...[With] the hills...in the west and Lake Frome...in the east, the water [is] obviously running from the hills to the lake and a lot of our

roads are running east-west.

The water concentrates down these roads so we're putting banks (whoa boys) in to try and slow the water down, spread it out and stop the water erosion along the tracks and the roads. [We're also] spelling more paddocks for longer periods if we can and...we've got a massive Prickly Pear problem down the Wirrealpa Creek so we're trying to control those as well.

All the information's up in my head. I know where every rare tree is and where the heritage sites are and to have it put on a piece of paper or a map is really an advantage. If I dropped off the perch tomorrow everyone would know exactly where the old watering points are, where the new ones are, where fences have been put and shouldn't have been put and whether you changed them in a later year. So it's just a process of [documenting] all the information, the historical information and modern history.

Part of the process was documenting the water sheds which was pretty tough going because you had to work out which way water was going. I found out that we've got five different water sheds here so you try to concentrate on one...water system at a time, find out where the best country is and look after that. [I]n our case, we've tried to keep it in the same water system, trying to do it one at a time rather than going from here to there and chopping around [without] any plans so we planned to control the water in one of the systems. I always thought you had to fix up the

EMU™ LAND MANAGERS HEAD TO NAMIBIA

Nine of the region's land managers will be jetting off to Namibia in south-west Africa in April next year to experience different perspectives on whole of property management.

Planning is well underway and it is anticipated the land managers will be hosted on Namibian properties where they may share with their hosts key aspects of station life and the opportunities and challenges.

Led by Hugh Pringle, the itinerary will include a visit to communal lands to see herding and the restoration work that the villagers have been doing there with their EMU™ partners, Conservation Agriculture Namibia and the Polytechnic of Namibia.

So committed are they to the EMU™ process, the land managers are travelling at their own cost.

Across The Outback hopes to share news of the trip and perspectives from the participating land managers this time next year.

bad parts, some of those are too far gone and cost a lot of money so it's better to look after the better country first and then go to the more deteriorated areas. It's a wish list and we're looking at priorities all the time: where will we go next? What will we do next? But it all comes down to finance. No money, no progress because you just can't afford to do it off your own bat. We've put in monitoring areas so it's a matter of just watching it over the years to make sure we're doing the right thing and the program's working properly – yeah monitoring's an important factor.

[Would I recommend EMU™?] My word. You learn so much about the place. I've been here 50 years and I think I've learnt more in the past two years than in the past 48 years because you learn about what's happening with the land and the water and yeah it's quite amazing. Incredible.

Further information

If you'd like to see Warren in action you can check out the video online. While you're there check out Michelle Reynolds' video where she gets out the maps to explain Willow Springs experience with EMU™.



Moro Gorge

Pastoral stewardship trial attracts healthy interest

Andrew Willson

Expressions of interest were sought in October 2014 from pastoralists in the SA Arid Lands region interested in incorporating conservation land use in their pastoral enterprise for a financial incentive. Natural Resources SA Arid Lands staff have been kept busy coping with the positive response, with nearly 10 per cent of eligible properties in the region expressing an interest.

Through this trial incentive program – the first of its kind in the region – pastoralists would be paid a fee to set aside areas for conservation stewardship, to provide long-term protection for the region’s significant plants, animals and habitats and to actively support their survival as part of a viable pastoral business.

The incentive was made available for leaseholders running an active beef or sheep pastoral enterprise, recognising that pastoralists are among the best placed to manage these areas with their intimate local knowledge and presence on the land. Nearly 40 enquiries resulted in 25 expression of interest packs being sent to pastoralists and a good number of these returned an application proposing a stewardship area.

Through a remote assessment using available landscape information, the stewardship area on each property was then ranked according to several criteria which assess the uniqueness of the land type as well as other biodiversity

conservation values including the native plants and animals that the area supports.

The SA Arid Lands team have now commenced visiting the higher ranking properties to consult with the landholders and evaluate the proposed areas looking at various aspects including infrastructure and water requirements, the grazing history and ongoing land management needs.

Given the positive response to this program, additional funding is being sought by Natural Resources SA Arid Lands so that all the pastoralists who expressed an interest may have an opportunity to take part in the program.

Further information

Contact Andrew Willson, Project Manager, Natural Resources SA Arid Lands 8648 5300.

Natural Resources SA Arid Lands, Native Vegetation Council

HAVE YOUR SAY

FLINDERS RANGES, BREAKAWAYS AND ARKAROOA PLANS

Public feedback is invited on draft management plans for the Flinders Ranges National Park, Breakaways Conservation Park and Arkaroola Protection Area. The draft plans set out objectives and strategies for the ongoing protection and conservation of the natural and cultural values of these important parks and wilderness areas. The drafts have been developed by the Flinders Ranges National Park Co-Management Board and the Breakaways Conservation Park Co-Management Board with comments due by 31 July. The draft plan for the Arkaroola Protected Area was developed in consultation with the lessees, Traditional Owners and scientific specialists with comments due by 14 August.

Visit www.environment.sa.gov.au/haveyoursay to view the plans, complete an online submission or for details on how to email or mail your submission.



CARBON ECONOMY UPDATE

The SA Arid Lands NRM Board are working with the Australian Government to investigate the opportunities for regional landholders to participate in the carbon economy, and there have been many changes in this program since we last reported on carbon farming in Across the Outback (June 2013).

In July 2014, the Australian Government repealed the Carbon Tax, and established the Emissions Reduction Fund (ERF) under the Direct Action Policy. As a result the mechanism being used to reach Australia's greenhouse gas emissions target has now changed.

The Government now purchases greenhouse gas reductions from emitters, as well as carbon bio-sequestered from the atmosphere by landholders, through a reverse auction process where carbon is purchased from the lowest cost supplier.

Each ton of carbon emissions reduced or sequestered in vegetation is awarded an Australian Carbon Credit Unit (ACCU). The Government will buy as many ACCUs as they require each year to meet their international emissions reduction target. The first auction of ACCUs occurred on 15 April 2015 with over 47 million tonnes of carbon dioxide contracted for \$660 million at an average price of \$13.95 per tonne. Twenty-eight million tonnes were purchased from landsector bio-sequestration projects.

New methods of carbon abatement are continuing to be developed, and opportunities for landholders in the SA Arid Lands may increase with time. For example, a beef cattle herd management method is currently under development, which seeks to reduce emissions intensity per unit of product while maintaining or increasing production by achieving faster turn-off rates.

Natural Resources SA Arid Lands staff will continue to monitor the progress of this method through the assessment process and advise regional landholders if it is approved for use.

Further information

Contact Peter Newman, Carbon Extension Officer, Natural Resources SA Arid Lands 8648 5300 or peter.newman@sa.gov.au

Pursuing profit in the pastoral zone

Pastoralists in the SA Arid Lands region can now tap into a new program designed to help improve their business management skills and bottom line.

The recently launched national Pastoral Profit program will increase pastoral producers' access to leading industry information, resources and technical experts through regionally customised training and development activities.

The importance of business skills training was highlighted by Grant Maudsley (a beef producer from Mitchell in Queensland and the current AgForce President) at the recent drought forum in Longreach.

In answer to a question about training for drought preparedness, his reply was startling:

"Any business skills we can give people are certainly fundamental. My kids went to school last year on the sharemarket, not from the beef market, and that was the result of learning I did in the early 2000s. That's one of the best things I ever did. It's really important that we pursue business skills training wherever we can."

Pastoral Profit was launched in June with a webinar by agricultural business consultant Phil Holmes addressing "The foundations for creating an economically sustainable livestock business in the pastoral zone".

Further information

To learn more about the program and to view the webinar visit www.pastoralprofit.com.au or contact Anne Collins, South Australia Regional Coordinator, 0427 486 115, anne.collins@sa.gov.au

Meat and Livestock Australia, Australian Wool Innovation

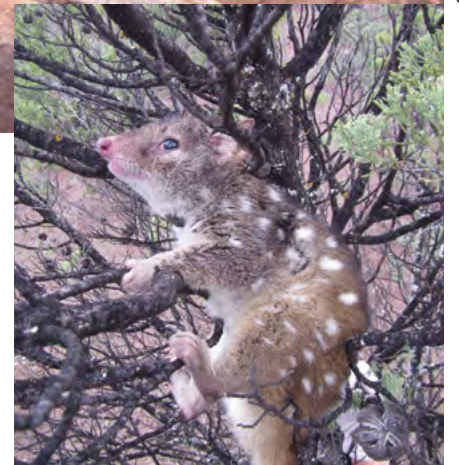




The morning after: a presumably satisfied male Idnya leaves a female den site

Below: A male Idnya exhibiting some risky behaviour during the breeding season

Cassandra Holt



Fresh Idnya population arrives at Wilpena

Dozens of donors and dignitaries were at Wilpena as 37 additional Western Quolls (Idnya) from Western Australia were released into the Flinders Ranges National Park in May.

This latest milestone in an ambitious project to return the spotted marsupial to a region where they've not been seen for nearly 150 years occurred after the initial trial translocation of 41 Idnya to the Flinders Ranges in April-May last year was deemed a success.

"The news is a significant achievement for South Australia's 22-year Bounceback conservation program," said SA Environment Minister Ian Hunter. "It is still early days but we remain hopeful that the Western Quoll might join the Yellow-footed Rock Wallaby as a species that is now thriving in the region under the protection of a dedicated fox and goat control program."

The reintroduction team is optimistic that this latest release of Idnya will help in the establishment of a viable population and, so far, female Idnya are starting their breeding season now with pouches becoming active and ready for pouch young.

Young are expected to start being born in June with juveniles emerging in October and most Idnya have settled down and established home ranges in the park.

While cats remain the main threat to individual Idnya survival, cat control is being conducted each month including trapping and shooting to give the quolls an opportunity to establish sustainable populations.

However, with no long term solution for feral cat control in existence, ultimately it will be important for the quolls to live in proximity to cats as they do in south-west Western Australia.

The return of the Idnya to the Flinders Ranges is part of Australia's first public/private environmental partnership between the Department of Environment, Water and Natural Resources, the Foundation for Australia's Most Endangered Species and WA Department of Parks and Wildlife.

Further information

Subscribe to Idnya e-News for a more detailed email update on the Idnya's progress: send an email with the subject "Quoll update" to SAAridlands@sa.gov.au

STOP PRESS

Up to 80 Brush-tailed Possums will be released in late June along river red gum floodplains and creek lines in the Flinders Ranges National Park. The release will be the first time in several decades that possums have inhabited South Australia's arid interior and will assist with improving ecosystem function in the Flinders Ranges. This is the second trial reintroduction of a locally endangered species as part of the partnership between FAME and DEWNR with the possums sourced from the Australian Wildlife Conservancy's Yookamurra Sanctuary near Swan Reach. More in the next edition of *Across The Outback*.



Those with an interest in the SA Arid Lands region are urged to get behind the reintroduction program which is relying on public donations for ongoing operational support over the next three years which includes monitoring and cat control. Donations to the Western Quoll project can be made by visiting fame.org.au/projects/western-quoll or contact fame@fame.org.au for more information.



The 2014 SEB Restoration Ecology Forum participants at Witchelina Nature Reserve

Natasha Halpern, NFA



Amy Slender

Thick-billed Grasswrens; Nature Foundation SA and Flinders University are investigating the effects of habitat quality on nesting success and dispersal on Witchelina

Nature Foundation Forum at Hiltaba

Deb Agnew, *ConnectionsNow*

Following the success of its inaugural Significant Environmental Benefit (SEB) Restoration Ecology Forum at Witchelina Nature Reserve in September 2014, the Nature Foundation SA will be holding its second forum at Hiltaba Nature Reserve 13-16 October in the Gawler Ranges district

Open to resource industry ecologists and environmental consultants, the forum gives the resource industry a chance to learn about the benefits of partnering with the Nature Foundation to deliver SEBs with native vegetation clearance offset funds.

The two day (plus travel) Hiltaba Forum will set aside time for workshoping environmental issues specific to the resources industry, including discussions regarding recent changes to the *Native Vegetation Act 1991*.

Last year's Witchelina Forum brought together 21 participants from resource sector companies, state agency personnel, Flinders University researchers, Nature Foundation ecologists and SEB program staff to share their ideas about SEB offsets.

The Foundation, a 33 year-old nature charity, acquired Witchelina Nature Reserve in 2010 with SEB funds from five resource sector companies: Santos Ltd, Beach Energy Ltd, Victoria Petroleum NL, Epic Energy Ltd, and Stuart Petroleum, and contributions received from the State and Australian Governments.

In 2012, the Foundation purchased Hiltaba Nature Reserve and has been preparing it for delivery of SEB offsets. The two reserves, which together cover almost

half a million hectares, are managed at landscape scale — which means for every hectare protected in meeting SEB obligations under the *Act* many more hectares are actually benefitting.

Removal of livestock and control of feral goat populations has significantly reduced total grazing pressure on both reserves, resulting in increased native plant recruitment and improved quality of habitat for native fauna.

With Natural Resources SA Arid Lands staff, the Foundation has been working to quantify the grazing impact of herbivores — both spatially and over time — and to compare the impact of different herbivores.

Detailed management plans specific to each reserve link actions to long term outcomes and ensure a scientific approach is taken to producing a net environmental gain.

The environmental gains made are measured and reported back to the Native Vegetation Council and contributing companies.

Further information

If you are interested in learning more about the Hiltaba Forum or the Nature Foundation's SEB program email Caroline.Nefiodovas@nfsa.org.au

WHAT IS A SIGNIFICANT ENVIRONMENTAL BENEFIT?

South Australia's *Native Vegetation Act 1991* requires that if native vegetation is cleared the environment must be compensated by an 'offset', an action that results in a Significant Environmental Benefit (SEB). The aim of an SEB is to produce an overall environmental gain.

The *Act* provides four options for achieving an SEB:

1. Establishing and managing native vegetation on the land
2. Protecting native vegetation growing or situated on the land
3. Entering into a heritage agreement with respect to specified native vegetation on the land
4. Payments into the Native Vegetation Fund.

Land managers who are planning to clear native vegetation and offset it through on-ground means (options 1-3 above), may choose to do one or more of the following: provide a new SEB area; use surplus SEB credit; have surplus SEB credits assigned from another person or body; or engage another land manager as a 'third party' provider such as Nature Foundation SA.

Further information

Contact the Native Vegetation Council 8303 9777 or nvc@sa.gov.au



Land managers upskill

Regional land managers have shared their thoughts with us following a number of recent training and development opportunities in the region and interstate.



Glen Norris demonstrated some of the successful weed management programs on Boolcoomatta stations and one participant commented, "seeing what has been done here to control weeds gives us hope".

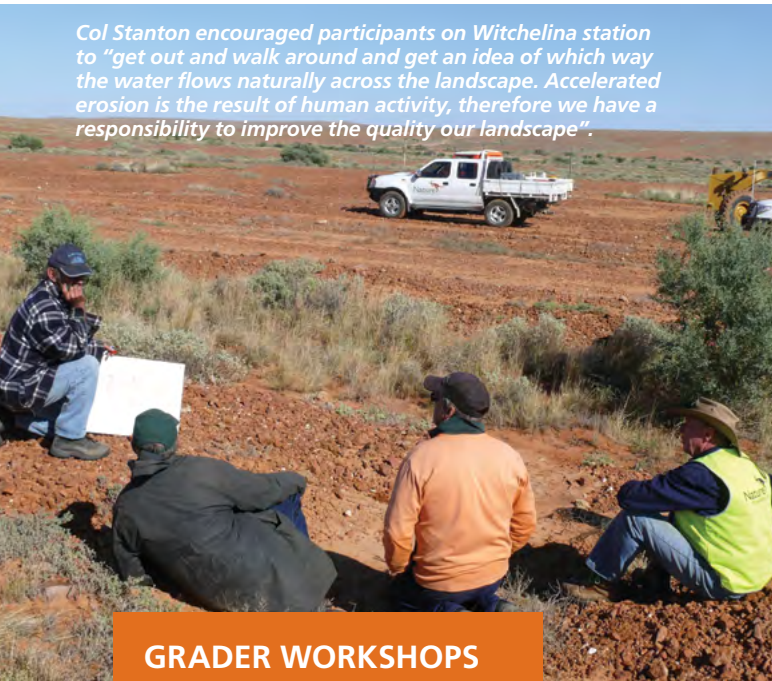
REGIONAL WEEDS WORKSHOP

Land managers representing 10 properties in the North East Pastoral District recently participated in a regional weeds workshop at Boolcoomatta Station. Presentations were given on priority regional weeds such as Opuntia, Boxthorn and Buffel Grass and demonstrations in the field were undertaken by Glen Norris (Boolcoomatta Station) and Merri Tothill (PIRSA).

Merri Tothill demonstrated land condition monitoring techniques and the participants enjoyed Merri's knowledge of native pasture species.

North East Pastoral NRM Group, Natural Resources SA Arid Lands, Australian Government

Col Stanton encouraged participants on Witchelina station to "get out and walk around and get an idea of which way the water flows naturally across the landscape. Accelerated erosion is the result of human activity, therefore we have a responsibility to improve the quality of our landscape".



GRADER WORKSHOPS

Thirty four land managers attended the region-wide Grader and Soil Conservation workshops delivered by soil conservation expert Col Stanton in April and May 2015.

Land managers were provided with expert advice to help them understand erosion processes and the impact, how to identify and assess erosion problems and awareness of best-practice land management.

Brendan Reynolds, Willow Springs Station says, "I now have to learn the new way of doing things, but my son will learn it and it will be second nature for him."

SAAL NRM Board, Natural Resources SA Arid Lands, Australian Government

ARS CONFERENCE

The 18th Biennial Conference of the Australian Rangeland Society was held in Alice Springs with the theme, "Innovation in the Rangelands". Six land managers from the SA Arid Lands region were supported to attend by the SA Arid Lands NRM Board with Australian Government funding.

"One of the main messages I gained from the week is that things take time, and they must be done right in order to make a difference, but a nudge in the right direction is always helpful," said Joel Kowald, Natural Resource Officer, Breakaways Conservation Park, District Council of Coober Pedy.



Natural Resources SA Arid Lands NRM Officers Janet Walton and Louise Gavin joined land managers Caroline Thomas, Glen Norris and Mike Chuk at the Conference.



Matt Graham (Pilot, DEWNR), Christine Arnold (Wildlife Officer, Kangaroo Management Program, DEWNR) and Sarah Voumard (trainee aerial observer)

This year's Kangaroo Aerial Survey started on 22 June and will cover both pastoral and agricultural areas, including the east of the state between Burra and Renmark, moving north to around the Flinders Ranges and up to Coober Pedy then finishing over the Gawler Ranges on around 31 July (weather permitting).

The survey collects information regarding the trends of kangaroo populations across the landscape and informs the setting of quotas within the commercial harvest area for kangaroos. Trained observers fly east/west transects counting Red Kangaroos and Western Grey Kangaroos as well as recording euros, emus and goats, and noting other large species of interest, such as camels or horses.

The South Australian Kangaroo Survey

It takes keen observation and stamina to count kangaroos

The South Australian Kangaroo Survey, one of Australia's longest running aerial wildlife surveys, takes to the skies again for six weeks over June and July. The training of observers has been running alongside the survey for more than 30 years. Sarah Voumard, a Ranger with Natural Resources Northern and Yorke, joined the survey team and *Across the Outback* asked her about her experiences as a trainee aerial observer.

At first thought, counting kangaroos in the landscape doesn't seem that hard to do. But try counting kangaroos over 207,000 square kilometres of South Australian landscape over a five week period and it's starting to sound like a job that requires highly tuned observations skills and a great deal of stamina!

Keen to see more of South Australia and with the lure of participating in a survey counting animals, Sarah put her hand up to join the survey team in 2012.

As an aerial observer, Sarah is required to sit in the rear of a Cessna 206 aircraft and scan the landscape at about 250 feet above ground level, counting kangaroos in a 200m wide strip on her side of the aircraft, and surveying one square kilometre every 97 seconds. Another observer sits next to Sarah (almost back to back!) and observes from their side of the aircraft. The aircraft flies low with streamers attached to its wing struts to guide the observer's survey area and follows an unchanged flight path.

Sarah considers herself an observant person and whilst working alongside calibrated observers in training, it became clear that she would need more than keen observation and an inquisitive nature, she would also need to be able to count animals in groups and add up fast!

"It was clear from the start that it takes stamina to keep your eyes moving and see all the roos (sic) that are on your side of the plane for about half an hour or so without a chance to have a rest.

At the end of each day I found I'd be mentally fatigued, but if I'm not also physically tired there's no guarantee of a good night's sleep. Long days of little exercise is a challenge, but I found running along airstrips during our mid-day break could help overcome it," said Sarah.

"I have enjoyed spending time seeing the State; the soil type changes, the topography, differing vegetation and animals that live there. In fact, it's been the most memorable part of the experience for me, seeing the landscape from the air, be it the back of Mt Remarkable, the Bangor fire scar or a mob of wild horses in the North West Pastoral country."

The Kangaroo Management Program would like to acknowledge the additional trainees in its SA Kangaroo Survey team including Pat Walsh, Michael Trebilcock, Kevin Lintern, Dwayne Godfrey and Jared Pippas.

Department of Environment, Water and Natural Resources



Wild dog paw print

IN BRIEF...

VOLUNTEER SHOOTERS

The opportunity for using qualified volunteer shooters from the Sporting Shooters Association (Conservation & Wildlife Management Branch) and the Australian Deer Association to undertake wild dog control is still available to properties that are experiencing impacts from excessive dog numbers outside the Fence. The service provides a travel subsidy to the volunteers, Registrations can be made via the Wild Dog Management Team.

LOCAL AREA PLANNING GROUPS

Local Area Planning Groups in the North Flinders-Maree, Kingoonya and North East Pastoral districts met during February to May to agree upon minimum standards for wild dog control in each district. Members of the LAP Groups who were unable to make the meeting are asked to sign the resultant local area plan and return it to the Wild Dog Management Team.

BAITS

Inside the Fence, the autumn bait injection service is complete and land managers should now have access to fully-stocked freezers. Meanwhile, subsidised manufactured baits are still available across the region. Contact the Wild Dog Management team for details.

AERIAL BAITING RESULTS

The March-April baiting saw 55,000 baits distributed along a 10,000+ km flight path across 98 properties inside the Dog Fence. The industry-funded program complemented Biteback ground baiting by targeting inaccessible areas to achieve landscape-scale control. A survey of landholders participating in the aerial baiting showed overwhelming satisfaction with the program with sheep producers generally optimistic that the aerial program would improve their ability to run more sheep and produce more wool.

Dogger get results

With the wild dog breeding season upon us, and young pups moving out of their home range, properties inside (south of) the Dog Fence have taken advantage of recent, additional trapping services offered as part of the *Biteback* program for wild dog control.

Through the *Biteback* program, land managers inside the Dog Fence in the SA Arid Lands region take a coordinated approach and work together to maintain wild dog control. Ground baiting is a critical tool for wild dog control but trapping can also be a valuable tool, particularly to capture more wily and elusive breeding-age dogs.

Professional dogger

Land managers on 15 properties inside the Dog Fence have used the services of professional wild dog trapper Brian Gill since February – and, with 27 wild dogs removed, the results (and feedback) have been terrific.

Jane Anderson of Cooyerdoo Station in the Gawler Ranges was so pleased with the result that she was compelled to write to the Wild Dog Management Team.

We appreciated very much Brian Gill being able to fit us in to his travel up to the Gawler Ranges and it paid off.

...we battled away for about two months trying to get this dog which created a lot of lost time/sleep with him lurking and us trying to get him.

The dingo was trapped last Friday in one of the traps that Brian had set.

I would like to advocate that Brian is providing a great service to the arid lands and having great success by the sounds of things.

We are all time poor and often need the extra help and expertise to get results.

The trapper has been working across the region south of the Dog Fence visiting properties for up to two weeks.

Take-up has largely been by properties managed for pastoralism in the Kingoonya, Gawler Ranges, North Flinders-Marree districts with some North East Pastoral properties recently expressing interest.

Several properties managed for conservation and Aboriginal-managed land have also procured Brian's services to minimise the threat to neighbouring properties that run livestock.

Bookings available... but be quick!

The dogger is already booked to October but there is funding to continue the service until the end of the year. Land managers inside the Dog Fence who are interested in a visit should contact the Wild Dog Management Team, Natural Resources SA Arid Lands 8648 5300.

SAAL NRM Board, Natural Resources SA Arid Lands, Livestock SA, State and Australian Government drought assistance funding



Participants learn how to clean traps by boiling them in water with unscented wax and a local plant to remove any scent

Trapping workshops

Around 25 participants honed their wild dog trapping skills during workshops held in the Gawler Ranges and Flinders Ranges in May.

The two-day courses facilitated by professional trainer and trapper Paul Billsborough (Wildpest Management Pty Ltd) covered a number of theory topics including animal welfare, trap and lure selection, the various types of trapping methods, the habits and signs of wild dogs, the use of lures and calling equipment, and the land manager's legal responsibilities in the trapping of wild dogs.

Participants also gained hands on experience in trap cleaning and adjustment techniques, trap site selection for various circumstances, lure selection and predator identification.

Each workshop was followed by a three day intensive trapping program on the host property. Participant feedback was overwhelmingly positive:

I highly recommend and leave the workshop fully confident, ...informative and great to see such a fantastic attendance; well explained, straight to the point, not too long; it was very informative and Paul was very good.

Ideas for improvement included subsidised trappers and traps, continuing to offer workshops, group purchase of traps and lures (to keep costs down), more doggers, and more assistance with supply and sourcing traps and lure supplies.

A communications network will now be developed to ensure all participants can share their experiences and further develop their skills by relaying what techniques are working (and not working) for them.

SAAL NRM Board, Natural Resources SA Arid Lands, Livestock SA, State and Australian Government drought assistance funding



Trainer Paul Billsborough demonstrating trap setting with Alex Guegan-Brown (Billa Kalina Station)



Volunteer survey results are in

The SAAL NRM Board would like to thank the volunteers who participated in a survey in late 2013 to establish an important benchmark for understanding their skills, knowledge and needs in working in natural resources management in the SA Arid Lands region.

Members of 26 groups and organisations – from bushwalking and 4WD clubs to Friends of Parks, church and ecological groups – were invited to participate in the online and telephone surveys.

The results are based on 60 completed email surveys and 25 telephone interviews with volunteer coordinators completed between November and December 2013.

While it will come as no major surprise for our volunteers, the results confirm that the SA Arid Lands region has a strong attraction to out-of-towners with 92 per cent of those surveyed largely based in Adelaide and a handful from interstate.

The majority (62%) of surveyed volunteers undertake activities both on-park and off-park, no doubt reflecting the cross-pollination of membership across groups like Friends of Innamincka Regional Reserve, Friends of Flinders Ranges National Park and the various four-wheel drive clubs working on pastoral properties.

Demographic profiling revealed that most of our volunteers (87 per cent) are over the age of 55.

For every female there are two males and collectively they make a very loyal and dedicated bunch: most have been associated with a volunteer group for 10 years and spend 10-20 or more hours volunteering each month.

While most of the volunteers (82 per cent) do not have any formal education relevant to natural resources management, many (61 per cent) cite concern for the environment and/or preserving it for future generations as their principle motivation to volunteer.

Weed control was the most common of the activities that the volunteers are involved in followed by revegetation, fencing, building restoration, field data collection, tourism infrastructure development, pest animal control while administrative activities including being a committee member and developing or reviewing management plans also scored highly.

Additional knowledge was also sought around recruitment, barriers to continued involvement, sources of information used to build knowledge and skills, and volunteer knowledge of grants and funding assistance. This information will be used to refine and improve support for the region's volunteer program.

Further information

The full report including a full list of the volunteer groups that were invited to participate can be found at www.naturalresources.sa.gov.au under the menu 'About Us' and 'Our region's progress'.

For volunteer opportunities contact Brendan Godfrey, Community Engagement Officer, Natural Resources SA Arid Lands 8648 5300.

SAAL NRM Board, Natural Resources SA Arid Lands, Ehrenberg-Bass Institute (University of South Australia)



HOW CAN YOU HELP?

For enquiries, to contribute disease surveillance information, or to organise a post mortem workshop in your area, contact Trent Scholz, Animal Health Officer, PIRSA Biosecurity SA 8648 5166 or 0427 970 453. Please also contact Trent if your stock exhibit unusual behaviour, to report unusual native or feral animal deaths, or if you would like more information on a particular animal health issue.

Remember there are government funds available for many disease investigations; see www.pir.sa.gov.au/biosecurity/animal_health for more information

Livestock disease surveillance

Why have it and what you can do to help

Readers of *Across The Outback* will be familiar with PIRSA's regular calls to the region's pastoralists to look out for and report diseased stock. As Animal Health Officer Trent Scholz reports here, it's all about protecting our livestock industries from emerging diseases, safeguarding market access and improving production.

Collecting animal disease information can be a challenge in remote areas of South Australia where livestock may only be seen once or twice a year. Often the first sign is dead animals.

However, it is just as important we collect disease surveillance information in this region as in any other part of the state for several reasons.

The earlier PIRSA is able to respond to an emergency animal disease, the lower the impact of the disease will be. We need to be informed of any unusual livestock health problems as soon as they occur.

Our livestock export markets also require evidence that there is active monitoring of the health status of our flocks and herds; monitoring and recording the health status of animals – even recording that they are healthy – is a very important part of this process.

Both local and international markets need to be assured that PIRSA is actively working with producers to establish our health status. We can't claim freedom from disease on the basis that we haven't been looking – absence of evidence is not evidence of absence.

And finally, monitoring locally-occurring production-limiting conditions – such as plant poisonings, metabolic conditions and a range of endemic infectious diseases – gives PIRSA the information needed to provide adequate management advice to producers.

Biosecurity SA – Animal Health



I miss the smell of the cattle in the yards...

Maree Morton and her husband Graham (Pod), retired to Queensland in January after 21 years on Innamincka Station and a lifetime in the pastoral community. Maree was a dedicated and long standing participant in community based natural resources management through her various roles with the SA Arid Lands NRM Board and Marree Innamincka NRM Group from 2005 until 2015. She shared with NRM Officer, Lisa Taylor, her reflections on a working life in land management.

I met Graham through a local event when my parents were working on Durrie Station. Graham was working on his family's property at Pandie Pandie. We married when I was 19 and started our married life on Durham Downs where I worked as a governess and Graham as a stockhand. After working a short time on Orientos Station, we went on to spend 16 years on Karmona, a privately owned 630 square kilometres property near Durham where we raised our two children.

When S Kidman and Co purchased Karmona in 1989, this parcel of land became an out-station to Durham Downs, which led to an opportunity for Graham to take up the managers position at Innamincka Station and so our life in the SA Arid Lands began.

Graham and I grew our skills and knowledge as land managers on Innamincka as it was a larger cattle property than we had worked on previously. We could develop in the sphere



of property planning, staff management and administration. I developed my skills in book-keeping, administration, payroll and staff management which was really enjoyable and fulfilling.

Times sure have changed though, technology particularly. When I first started I had a typewriter to prepare the reports and there was a lot of manual work in doing the books. The computer certainly helped a lot.

S Kidman and Co supported me in further study on an Advanced Diploma in Business and a Diploma in Natural Resource Management. This really helped me in my roles in supporting Graham on Innamincka.

One of the biggest changes in property management over the years has been in Occupational Health Safety and Welfare (OHS&W) particularly in terms of duty of care and Workcover. I believe these are not suited to pastoral property management, due to the economics of ensuring everyone is trained and holding appropriate qualifications such as confined spaces training and All Terrain Vehicle (ATV) tickets. When you are so far away from the training providers, it really adds up.

Workable policies where people take more responsibility for their actions seems to me to be the sensible way forward.

We also had a lot of staff on the property over the years, which presented some challenges but we always tried to create an inclusive environment for the staff, like a family. Living on a remote property can be lonely at times and sometimes the young stockhands needed a "second mum" to help them along. I received some really kind feedback from the parents over the years and I am proud of the way we treated and cared for our staff.

I really love the country and miss the people. I enjoyed being involved in natural resources management and raising awareness of the Pastoral industry and hope I have made a difference through my efforts.

ACROSS THE OUTBACK

Across the Outback is prepared and edited by the Communications team, Natural Resources SA Arid Lands, a division of the Department of Environment, Water and Natural Resources.

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Comments and suggestions are always welcome.

Please contact jenny.barker@sa.gov.au or 8463 3354

Content for the September edition due COB Friday 24 August 2015



National Landcare Programme



Government of South Australia

The Lake Eyre Basin partnership – an alliance of community, government and natural resources management bodies including the SA Arid Lands NRM Board took out the Australian Riverprize in September 2014. This 20-year, cross border initiative has been acknowledged for its community participation in protecting the natural river flows and Maree made a significant contribution to the partnership.

I am really proud of the work of the Lake Eyre Basin Committee as it was key in getting people together from various industries to share information for people to get a more balanced view. It seems so sensible and straightforward now, but it was ground-breaking for us as land managers to have a voice and be understood as legitimate, professional businesses with the Australian and State Government.

Being involved in this and providing different views to NRM professionals, academics and government representatives in what really happens on ground made me feel as though I was making a real contribution, not just for me personally, but for other pastoralists as well.