



CARING FOR COUNTRY

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Government of South Australia
Alinytjara Wilurara Natural Resources
Management Board



Australian Government

From the Regional Manager, *Natural Resources Alinytjara Wilurara*



Welcome to the latest edition of the Alinytjara Wilurara Natural Resources Management Board and Natural Resources Alinytjara Wilurara. You'll note it is jam packed with stories and pictures and notes about the NRM partnerships we

are working in with community, industry and across government, including:

- Restoration of Goog's Lake in partnership with local farmers, Traditional Owners and volunteers.
- The strong interest in NRM shown by young fellas from the region during their week for the Rio Tinto Cup
- Marine Debris Survey along Yalata Beach with Yalata school.
- A summary of eight years of animal tracking across the Maralinga Tjarutja Lands.

Strategy. Implementation of this strategy will generate career pathways for people in the region, from school through to business development, should they wish to.

The Board is also working on a Leadership Development Program, in which it will provide opportunities for young people in the region to attend Board meetings, have mentoring from Board members and to learn about the importance of good governance.

The value-add that the Board plays in the region is very important. Critical to this is the region-wide leadership representation the Board has from APY, Maralinga Tjarutja, Far West Coast and Yalata. This close link provides an efficient and effective mechanism by which government, industry, volunteers and interest groups can partners with communities and Traditional Owners of the region.

Palya,



Matt Ward
Regional Manager,
Natural Resources Alinytjara Wilurara

INVITATION

The Alinytjara Wilurara NRM Board invite you to join us on **Facebook** www.facebook.com/awnrm

AW weather stations

Check out data from the weather stations in the AW region on... <http://aws.awnrm.sa.gov.au/>

Next AW NRM Board meeting:

9-10 December, Adelaide

OysterFest Ceduna

4-5 October, Ceduna Foreshore

Ceduna Arts and Cultural Centre

Features genuine Aboriginal art
2 Eyre Highway, Ceduna

"Our Mob" Indigenous Art Exhibition

at Adelaide Festival Centre featuring Marine Debris sculptures, 23 October

The Board also prides itself in the broader role it plays in facilitating positive change the region. The boards programs develop outcomes in:

- Education
- Skills development
- Employment
- Community Safety
- Leadership Development.

To capture some of this broader role in a strategic manner, the Board is working on two key strategic priorities.

Firstly, the Board recently held a workshop to develop their Education, Training, Employment and Procurement

Where we are and what we do

The Alinytjara Wilurara Natural Resources Management Region covers the northwest quarter of South Australia.

In Pitjantjatjara, *alinytjara* means 'north' and *wilurara* means 'west'. The Region spans more than a quarter of a million square kilometres and has a population of approximately 2000 people, many of whom identify with the Pitjantjatjara, Yankunytjatjara, Ngaanyatjarra, Kokatha, Mirning or Wirangu peoples.

Natural Resources Management (NRM) is an approach to protecting land for the mutual benefit of people and the environment.

The AW NRM Board is the only all Aboriginal NRM Board in Australia.



Title page: Community members worked in the remote and spectacular landscape around Googs Lake for seven days to restore its natural assets. Photo by Paul Gregory



Students from Ceduna School consider the past, present and future of sustainability with NR AW's Nathan Williams

02 Googs Lake Restoration



Community makes all the difference

04 Footballers talk NRM in Adelaide

Young Aboriginal footballers look at future opportunities

05 Learning about Sustainability

Ceduna students consider the past, present and future of sustainability

06 Chemical Certificate Training

Oak Valley: Gaining new skills



06 Land Management Certs Awarded

AW NRM Board extend congratulations

08 Protecting Rockholes in APY Lands

Work on fences to protect rockholes from feral animals continues



08 Access track to new bore cleared



Yalata ladies working on Marine Debris Survey

09 Employment above target

14% increase in Aboriginal people engaged and employed NRM



10 Judas Collars: camel tracking



AW and SAAL Boards team up on camel project

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Improvement to wild dog management

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Birds and Habitat Monitoring in Maralinga Tjarutja



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Maralinga Tjarutja Lands

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Yalata Community on board

20 Protection for SA's marine life

Working and recreation in and around Marine Parks

From the Presiding Member



Welcome to the third edition of *Caring for Country*, 2014.

As with all Boards across the State we have been

busy rationalising the work we do and in doing so have refreshed our memories of the many successes we have had as a Board and with the Aboriginal people across our region.

After attending a meeting with Minister Hunt in Canberra earlier this year in which program design, Landcare and pests were discussed, I feel very positive that the Board and Natural Resources Alinytjara Wilurara are travelling in the right direction for continued success.

The recent merger of DFEEST and DMITRE into a single department, the Department of State Government, will mean some realignment of our current strategies; we intend of course to ensure that any adaptations will produce additional positive outcomes.

At our last Board meeting, Mick Horner (Dept Planning, Transport and Infrastructure) provided an update on current and planned road construction in the APY. He advised the Board that over the next 4 years, this would present many opportunities for local employment and traineeships.

Greg Franks (CEO Yalata Community) also attended the Board meeting and provided very encouraging local insight into community plans for future economic growth as well as current programs and activities underway. Keep up the good work Yalata!

Parry Agius
Presiding Member

Alinytjara Wilurara Natural Resources Management Board



Googs Lake

Setting up camp lakeside

Community make all the difference

Googs Lake is located 67 kms northeast of Ceduna in the Yumbarra Conservation Park. Over recent years, increased visitation to the area and the careless behaviour of a minority of people, have caused damage to the cultural sites, soils and native vegetation that surround the lake.

An initial community consultation meeting, held in 2013 at the Ceduna Natural Resources Centre (NRC), revealed the extent of concern locals had about the Goog's Lake area and their enthusiasm to be involved in its restoration. Following this meeting, the community members worked together with staff from the NRC on a seven day restoration project revegetating and rehabilitating the area around Googs Lake to protect culturally and environmentally sensitive areas. The huge success of this project was recognised at the 2013 South Australian Landcare Awards where it was a finalist for the Indigenous Land Management Award.

In June this year, the Googs Lake Restoration Project was re-ignited, starting with an initial community consultation at the NRC.

Paul Gregory discussing plans for the Googs Lake Restoration Project at the community consultation evening, 24 June, 2014



The consultation invitation attracted over forty people who discussed future restoration works around Googs Lake. The group included members of the West Mallee Protection Group (WMPG), local farmers, community members and staff from Natural Resources Alinytjara Wilurara (NR AW) and Natural Resources Eyre Peninsula (NR EP).

The community consultation allowed stakeholders to have a say, share priorities and raise issues to be considered. Discussions on the night related to track closures and definition, priority damage areas eg where some visitors had driven on the lake, signage, visitor information, picnic tables, toilets and taking a positive approach to access management.

Access management work









Following the community consultation, volunteers and NRC staff headed off for a week long field trip and camp between the 7 -14 July 2014. More than 60 people were involved in this year's Googs Lake Restoration Project,

with an average of 40 people on site each day. This allowed more work than initially anticipated to be accomplished.

Track rationalisation

Mapping the area was conducted before the project began with many discussions held between NR AW and NR EP staff, WMPG members and the local community to determine which tracks should be defined and which should be closed. Some decisions were made prior to the project week, others were made on site.

Contractor Peter Hanlon (Exploration Rehabilitation Services) provided training during the first two days of the project. Everyone who undertook training received a personalised Certificate of Attendance. The training covered various rehabilitation methods to disguise and close existing tracks including: ripping tracks to break soil compaction in wheel tracks and promote seed germination; ripping and levelling track shoulders and windrows; removing old track lines by

-  Formal Campsite
-  Informal Campsite
-  Access Track to Lookout
-  Defined Track
-  Main Vehicle Route
-  Track closed 2013
-  Track closed 2014
-  Track requiring assessment





Amazing transformation: track before (left) and after being disguised and revegetated(right)

Tammy Cox, Robbie and volunteers setting up visitor sites

bringing the soil level up to the height of surrounding undisturbed ground and; trenching across ripped tracks on sloping ground to defuse water channelling which causes erosion and washes away topsoil.

Tree branches were placed along track length to restrict vehicle access and provide seed capture sites. The vegetation also defuses water from channelling and deters animals from creating line tracks.

A total of 39 tracks were closed and disguised around the lake, almost 7 km in total, directly covering an area of 2.43 ha (see front cover photo). The map on the page opposite shows the tracks that were closed in green with newly defined track in yellow.

The main benefit of closing these tracks was to increase protection of culturally sensitive sites, Googs Lake itself and frequently visited sites around its perimeter.

Even the kids were happy to help out disguising the tracks



Track definition

In order to improve visitor safety and enhance their experience in the region, a team of workers from the West Mallee Protection Group defined a 7.3 km stretch of one of the major tracks located to the north of the lake, heading east to Narla Rockhole.

By providing clear roads it is hoped that visitors will be encouraged to not go off track where their vehicles damage native vegetation.

Track maintenance

Googs Track, from Eyre Highway to Googs Lake was graded twice by Senior Ranger Robbie Sleep. The track from Googs Lake to Narla Rockhole was also graded twice on the final day of the project week.

Installation of signage

During the course of the week, signs were installed around the lake and on access roads running to and from the

lake. Signs installed included, 'Driving on Lake Prohibited. Culturally sensitive area', Camping ground symbol signs, and Googs Lake Restoration Project signs.

The installation of simple maps of the area, showing main tracks, turn around points and campsites were also discussed at the consultation along with information about the cultural significance of the area. Design and installation of interpretive signage will be a priority for the Googs Lake Restoration.

Number of camping permits issued in the past 4 years.

2011	331
2012	474
2013	444
2014	290 (@ July)

Note: these figures however do not accurately reflect true visitor numbers which are considerably higher with many people travelling through the area during the day and others who camp illegally.

NRC Staff and volunteers celebrate the end of a hugely successful seven days of restoration work around Goog's Lake





Young Aboriginal Footballers talk NRM in Adelaide

Young men from remote communities in the Maralinga Tjarutja (MT) Lands, West Coast and Anangu Pitjantjatjara Yankunytjatjara (APY) Lands came together to battle it out on the football field at the AAMI stadium on Saturday, 5 July 2014. Organised through the SANFL and sponsored by Rio Tinto and SkillHire, the Aboriginal Lands Challenge Cup celebrated 10 years since its inception in 2004.

During their stay in Adelaide, the young footballers attended presentations from various organisations relating to career pathways and healthy lifestyle options. Natural Resources Alinytjara Wilurara’s (AW) Project Officer (and Regional Landcare Officer) Nathan Williams, joined Bruce Macpherson, (AW Community Engagement Manager) to talk to the group of over 60 men, about natural resource management in the region and the opportunities it offers for involvement, training and employment.

Bruce introduced the Alinytjara Wilurara Natural Resources Management (AW NRM) Region to the group from a natural resource management perspective, and pointed out the importance of working together to incorporate aboriginal knowledge and priorities.

Nathan talked about the need for feral animal management and weed control

as well as preservation of species and described some of the key regional projects that AW are involved in with Anangu support. He talked about how much he enjoyed his role and the satisfaction he gained as an aboriginal man working on country.

Nathan’s presentation was followed by a talk by Liberty Olds from ZoosSA speaking about the Warru (black footed wallaby) Program in which close collaboration between APY Land Management, Conservation Ark (ZoosSA), Natural Resources Alinytjara Wilurara, Ecological Horizons and the University of Adelaide has proven highly successful. This program was

“It was very encouraging that a number of the young men came up and spoke with me during the break to ask how they might become involved in NRM work in their region and where it might lead them in their future careers” said Nathan.

Attendees had a bit of fun placing pictures of the correct native species endemic to particular regional landscapes. The one below shows natives species of the Nullarbor Plain



funded by the Australian Government Working on Country Program and the Alinytjara Wilurara NRM Board.

How did the big game go?

Susan Close MP presented the Aboriginal Lands Challenge Cup to the APY Lands winning team on behalf of Ian Hunter, Minister for Aboriginal Affairs in South Australia. She also presented a number of other awards to outstanding individual players on the day.

For further information regarding Aboriginal Community involvement in natural resource management visit www.naturalresources.sa.gov.au/alinytjara-wilurara, or contact the Natural Resources Alinytjara Wilurara’s Adelaide office on 8463 4860 or in Ceduna on 8625 3144.

Caring for Country catches attendees attention



Nathan Williams with a group of the footballers who attended the NRM session.



Learning about Sustainability...



Past, Present and Future

Students from Ceduna Area School travelled to Nadia Landing, (30km west of Ceduna) last month to spend time thinking about what is important about sustainable living. Accompanied by staff from the Ceduna Natural Resources Centre, the 40 students learned, amongst other things, about the work that Natural Resources Alinytjara Wilurara and Eyre Peninsula do in the region.

The School's Middle School Coordinator Jo Blackham had earlier contacted the Ceduna Natural Resources Centre (NRC) seeking NRM support in teaching students about sustainability, from both a traditional and modern day perspective.

Tammy Cox, Yasmin Wolf, Amanda Richards, Nathan Williams and Erin Gibson visited the school and gave a half hour presentation to each of the two classes, covering questions like 'What is a Natural Resource' and 'What is Sustainability' and highlighted some common characteristics of traditional sustainability.

The students, teachers and NRC staff members then travelled out to Nadia Landing. On arriving the students broke up into four groups to discuss and brainstorm different scenarios related to living in the area. The students were asked to think about what they would need to live there, either 300 years

ago or today, and how they would get those things.

Sue Haseldine, a highly regarded local Kokatha woman, met up with the group at Nadia Landing. She spoke about the area and described some local examples of traditional sustainability.

Using large gum nuts as 'earth tokens', the students were then asked to consider the impact (number of tokens) the use of particular resources (eg water, items for shelter etc) would have on the environment.

"Listening to the kids rationalising the value of natural resources was amazing and sharing their enthusiasm was a rewarding experience" said Erin (NR AW Community Programs NRM Coordinator).

Working together as a team the NR AW and NR EP collaboration once again produced a really positive outcome for every one involved.

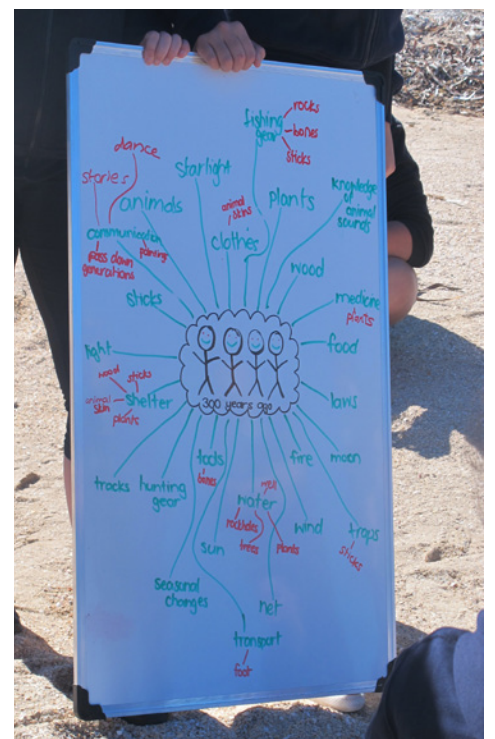
Sue Haseldine (left), Tammy and Yasmin talking about the ideas students had considered (shown right)



Nathan Williams (left) and Erin Gibson (above) talk with Ceduna School children about sustainability

"We hadn't tried delivering this type of learning experience before. It showed us and the students the value of connecting the past and the present to consider what we need for the future" said Tammy Cox (NR EP Ranger).

Introducing the students to the "earth token" concept





Oak Valley

Gaining new skills and accreditation in Chemicals Handling

In early August, the Western Australian Spinifex Land Management team travelled over 350 km from Tjuntjunjara to Oak Valley to join the local Land Management team for Chemical Handling training.

The majority of the vast Alinytjara Wilurara (AW) region is currently free of buffel grass, a weed which, if left to spread, could pose a serious threat to the safety of Aboriginal communities and to native fauna and flora.

In line with Natural Resources Alinytjara Wilurara's Buffel Grass Operational Strategy (and the SA Buffel Grass Strategic Plan), 15 community members from Oak Valley and Tjuntjunjara received training in safe, effective weed control with chemicals.

David Georg delivering training at the Oak Valley Land Management Office



"The Chemical Handling training delivered in Oak Valley is an important step toward supporting communities to be independently proactive in controlling invasive weeds" said Lynda Marshall, AW's Buffel Grass Project Coordinator.

Under the careful guidance of David Georg, (Georg and Smith) training was delivered with a lot of hands-on practice. This proved very successful in developing confidence in using the equipment.

The training, which would provide accreditation of level 2 and 3 on the Chem Card, was held at the Oak Valley Land Management Office with practice and spraying assessments undertaken around the community.

The Spinifex team were particularly interested in gaining the skills needed to manage weeds and control buffel grass infestations along the Tjuntjunjara - Oak Valley Road, around their community and across their traditional lands.

Throughout the two days of training a camp fire was kept burning with a giant billy on the ready for tea and lunch breaks.

On the last night of training everybody enjoyed a barbecue joined by their families.

"This is the first of what we hope will be many activities with the Tjuntjun mob.

Left-right above: Justin Graham, Ethan Hana, Scott Bird, Adam Pennington, Stuart Doher, Delwyn Franks, Jarett Franks, Liam Mulcahy, Ben George, Quinton Brown, Graham Yatjitja, Aaron Moodoo, Parka Hogan, Ian Bridley, Nathan Williams, Troy Hansen, with trainer David Georg

"It was a fantastic turn out with everybody working well together and all 15 people earning level 2 or 3 Chem Card certificates" said Lynda.

To increase their capacity for weed control, Spinifex Land Management recently acquired a boom spray to mount on their tray-back Toyota. This will make removing large infestations of weeds more efficient. The first target for use with the boom spray is a population of Buffel Grass on the Tjunutjuntjara-Oak Valley Road close to the SA-WA border.

Participants and their families enjoying a barbecue on the last night of training hosted by NR AW



Congratulations Joy!

A role model of the Ceduna Aboriginal community in the sports, education and political arenas won this year's Gladys Elphick award.

Minister for Aboriginal Affairs and Reconciliation said this year's winner, Joy Reid, has been an inspiration for

other women through her selfless work as an ambassador for the Far West Netball Association and as an innovative early childhood educator.

"Joy is a wonderful example of the contribution of Aboriginal women to the community and her efforts have

ensured the younger generation had a solid foundation on which to succeed," Minister Hunter said.

"Her encouragement of others, dedication and selfless commitment embody the spirit of the Gladys Elphick Awards."

Courtesy of SA Department of State Development



Congratulations from

the Alinytjara Wilurara NRM Board...

to Land Management Certificate recipients

The Alinytjara Wilurara Natural Resources Management (AW NRM) Board extends its congratulations to the eight young Aboriginal men who were awarded certificates in Land Management at a barbecue lunch held in late July at the Ceduna Aboriginal Corporation (CAC).

“This is a great achievement by these young fellas and we look forward to seeing them finding employment that will not only benefit themselves but also their country” said Parry Agius, Presiding Member of the AW NRM Board.

The 10-week program funded by CAC, involved completing certificates in occupational health and safety, St Johns First Aid, horticulture, conservation and land management, and an all-terrain vehicle training course.

CAC Chief Executive Officer and AW NRM Board member, Michael Haynes

said the vision was to work closely with Natural Resources Eyre Peninsula and Natural Resources Alinytjara Wilurara, to secure employment across the region.

“One particular area they have been trained in is seed collection. They are equipped to go out and identify the seeds, all the way through to using the seeds for re-vegetation and restoring land back to its original state.”

Certificate recipient Shannon Miller from Ceduna said the courses were challenging, both physically and mentally, but still very rewarding.

“We were really lucky to have our mentor Allie-Pireata throughout the course to help us get through when it got a bit tough, but I knew I wanted to finish and now I work in land management,” Mr Miller said.

Not all trainees could attend the lunch to receive their certificates. Aside from the proud recipients photographed

on the day (below) certificates were also awarded to Spencer Benbolt and Ashley Gray-Milera. In addition, Shannon Malupo partially completed all modules and Richard Lennon completed 1 module.

The courses making up the Land Management Certificate include: St John First Aid; Flora Bank Seed Identification; Chem-Cert-Preparation and Application; Work Zone Traffic Management; White Card (OH&S); Chainsaw Handling; GPS Tracking and All Terrain (ATV) 4x4 Vehicle Training.

These new qualification are provided to Complete Personnel who build individual work profiles for the men that will highlight their readiness and capacity to be engaged by employers.

A number of accredited training course(s) available in the near future will be conducted at Roseworthy College through TAFESA and delivered at Calperan and Taylorville Stations in the Riverland. These are to be held from Monday 29th September 2014 to Friday 3rd October 2014.

These courses include:

1. Part (1) License Skill Set Vertebrate Pest License
2. Part (2) Apply Animal Trapping Techniques, Recognise Fauna, Develop a Pest Management Action Plan, and; Implement Vertebrate Pest Control Program

The CDF program for Vertebrate training in September, is an essential element in the delivery of achieving training accreditation and future employment in pest management.

Photography courtesy of West Coast Sentinel and details based on West Coast Sentinel article published 31 July.

Ceduna Aboriginal Corporation chairman Peter Miller presented the Land Management certificates to... Akulu Nanai



Steven Kelly



Brodie Gray-Milera



Craig Ware



Jacob Dunn



Shannon Miller





People: *Keeping up the pace*

Protecting Rockholes from Feral Animals

In early September, Shane Doudle (AW consultant) spent a week working with APY traditional owners erecting fences around several significant rockholes to ensure they would be protected from being damaged and polluted by feral animals.

After discussing the work plan for the week with Anton Baker (member of the APY Lands Executive Board) he met up with Keith Stevens, a respected senior man in traditional law and a community leader, to organise a trip out to seldom visited Piltarti rockhole.

Traditional Owners Roderick Wilkilyiri, Clive Peters, Roland Baker and Bradley Tunkin set out with Shane to Puntti rockhole where they welded cable guides to the posts that had been positioned in August.

The following day, Keith Stevens took Clive, Roland, Bradey along with Troy Yanima, Toby Riley, Jerome Wheeler, Mac Doudle and Mick Broad to Piltarti rockhole. Keith and Clive were the only ones who had been there before. Well versed in stories of this region, Keith explained the traditional story of the rockhole to the group.

A trailer was modified in Umuwa so a welding and generator set could be mounted and a shaft was attached to help reel out fence cable.

Arriving at Puntti rockhole, Clive Peters, Anton, Andrew and Roland, Bradley and Jerome Baker, found they were not able to work because of strong winds. Not to be defeated, they returned to Kanpi, cleaned out the community shed and started fabricating the gate.

Returning two days later with the cable trailer and finding it still too windy to weld the team decided to run out the bottom wire on the fence's southern and western sides and strain it up.

The following day was calm so Clive, Andrew, Bradley and Roland spent the day welding cable holders to the posts. Clive and Andrew later cleaned up dead grass from around Puntti rock hole.

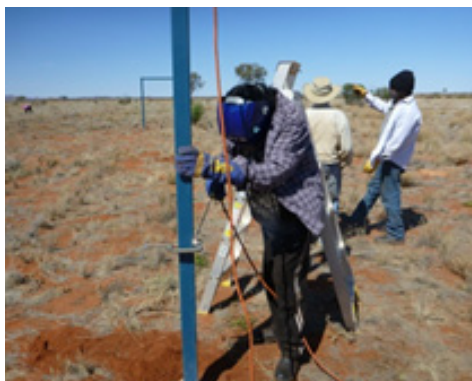
Everyone's welding skills improved although they were limited by only having one welding iron. A day of one-on-one training to help refine the group's welding skills and be assessed for Certification at the community shed in Umuwa is planned for the near future.



Welding gates at Kampi Community shed



Cable drum set up on trailer



Welding cable guides to posts and running out the wire



Work continues on Bore Access Tracks in APY

With the track marked out and cleared of old fencing debris last month, the access track along the new fence line to Davey's Bore was graded. The project is the outcome of a productive partnership between Natural Resources Alinytjara Wilurara, Manta PalyaKutu, Skillhire and the community of Indulkana. The new bore will provide water for corralled animals and, with the installation of new fencing, support feral animal management.



Jerry cans used to fuel up the grader



Troughs, tanks and fencing ready for installation at Davey's Bore



Solar panels set up to power the bore pump



Jeffison Doolan, Michael Drover and Malcom Coulthard clearing away the last remnants of old fencing wire



Above: Dozer driver Mark Frahn heading off to work
Below: Donald Grant discussing work with Mark



Skillhire Supervisor George Rosewarne talking with the crew during lunch break



Eddie Edwards, Robin Edwards and Donald Grant



Aboriginal Employment Above Target in Alinytjara Wilurara Region

Natural Resources Alinytjara Wilurara (NR AW) has been delivering Natural Resources Management (NRM) programs in conjunction with Aboriginal landholding authorities across the region for 6 years. In doing so it makes a significant contribution towards the employment of Aboriginal people within the region.

Local consultations held with Aboriginal community members to determine their local NRM priorities and formulate work programs has resulted in the successful implementation of multiple community projects throughout this time.

The message that partnerships and capacity building are integral to the development and delivery of NRM outcomes has been consistent and led to development of a five-year Aboriginal Engagement Strategy for NR AW.

The Board's Education, Training, Employment and Procurement Strategy aims to increase Aboriginal people engaged and employed in natural resources management by 20% by the end of the 2017/18 financial year.

Training and firebreak burning in the APY Lands



This would be achieved through direct employment, contractual agreements, and casual work on projects.

Over and above expectations

The first year of the strategy's implementation showed a 14% increase in Aboriginal employment or engagement (2012/13 to the 2013/14 financial year).

The graph below shows the full time equivalent Aboriginal engagement separated between females and males, and as a total in the 2012/13 and the 2013/14 financial years. The chart highlights that the female Full Time Employment (FTE) increased significantly from 12/13 to 13/14, and that overall FTE increased by 14% from 12/13 to 13/14.

By investing in community driven land management, employment in NRM will mean increased economic participation in communities, increasing the opportunity for communities to conduct their own land management activities in the future.



NRM Boards team up for Camel Tracking Project: 12 new Judas camel collars deployed

Rains temporarily green the desert landscape

Feral camels roaming the fragile northern regions of South Australia present an ongoing challenge to the health of the natural landscape including native species and water supplies. Together with the region’s traditional owners, Natural Resources Alinytjara Wilurara (NR AW) and Natural Resources South Australian Arid Lands (NR SAAL) undertake a range of camel management strategies including GPS tracking.

Over the past 12 months, extensive community consultations were undertaken to develop a Regional Camel Management plan. As part of this, in May 2014, NR AW and NR SAAL teamed up to deploy 12 satellite GPS camel collars (Judas collars) to track the movement of herds across the region.

These collars, along with 11 others previously deployed in 2013 as part of the Australian Feral Camel Management Project (AFCMP), will provide tracking data. This is used to inform aerial removal programs and on-ground mustering works throughout the regional pastoral areas.

Reducing feral camel numbers decreases the threat to ecology and biodiversity across remote Australia, helps to protect culturally significant sites and traditional water supplies and

reduces depletion of scarce vegetation, and therefore soils, on pastoral lands.

In May, Dan Bailey (NR AW), Robbie Sleep from Natural Resources, Eyre Peninsula (NR EP) and veterinarian, Dr Nigel Baun along with helicopter pilot Tim Anderson and his ground support Andrew Bird successfully managed deployment of the collars. They were supported by Tammy Cox (NR EP) who monitored helicopter operations throughout the trip from Ceduna.

“It’s important that we continue to monitor feral camel movements and congregations to enable us to determine the most efficient and effective means to facilitate future culls – particularly in inaccessible areas such as of the Great

Victoria Desert, Maralinga Tjarutja Lands, the Nullarbor and the Simpson Desert” said Robbie Sleep (NR EP Senior Ranger).

Dan Bailey, (NR AW’s Sustainable Resource Coordinator) said “the data from these collars will increase our ability to control and manage feral camel numbers around the State, monitor the influence of seasonal events on congregations as well as observe Individual behaviours including their home ranges.

“Close attention was paid to ensuring that the Standard Operating Procedure for aerial-based darting and

Feral camel waking up from having the a GPS Satellite collar attached (photo: Dan Bailey)





Feral camel seen from helicopter (photo: Dan Bailey)

Call for improved Wild Dog Management

Heather Miller, Department of Environment, Water & Natural Resources, Port Augusta spoke at LambEx 2014 in Adelaide saying that the problem of wild dogs spreading to South Australia's agricultural areas is out of control.

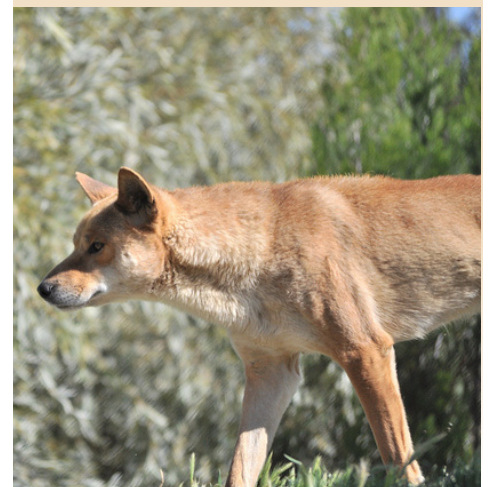
She said that in the past three years increasing numbers of dogs were getting through the gaps in the dog fence in the northern pastoral areas of the state and spread up to 300 kilometres south.

On the southern side of the fence they are a declared pest and legislation requires all landholders to manage them.

"With many properties moving from sheep to cattle, organic producers unable to lay poison on their property, some properties focused on tourism, and wild dogs not affecting the bottom line of mining companies, effective management is seriously challenging" said Ms Miller.

"If south Australia wants to sustain a cattle and sheep industry we need to control these predators.

"A cooperative approach by all parties will be the key to reducing this mounting threat" she said.



immobilisation of feral camels was followed so we could safely attachment the radio collars without undue stress to the animals" he said.

The vastness of the region means long periods of travel through areas that have little or no infrastructure in place. For this reason preparation must be meticulous.

Preparations, travel and trip

All vehicles and recovery gear were carefully checked over in Ceduna where the trailers of camping and tracking equipment were loaded and helicopter fuel organised. Well aware that outside assistance would not be practical if they struck any difficulties, the team spent the morning running through safety issues before travelling over 400 kms to Oak Valley.

The following day they met up with the helicopter crew at Rodena Dam (Maralinga Tjarutja), ran through the procedures for the deployment of the

AW's Dan Bailey waiting with the helicopter pilot



collars and, in the afternoon, located a sizable group of camels and attached three collars. Camp was then set up at Vokes Hill Corner.

Next day the team travelled east on Anne Beadell Highway (unsealed red dirt road), located and collared one camel then camped around Tallaringa Well. Travelling further along the Anne Beadell, another collar was put out before camping in Coober Pedy.

After dropping fuel for the helicopter at Oodnadatta and the last of the NR AW collars being deployed, the ground crew headed to Dalhousie to set up camp at Dalhousie Springs. The next morning the crew drove into the desert and collared one camel 30 miles from Purni Bore before heading back to Dalhousie Springs.

The helicopter flew to Kalamurina early next morning and the ground crew headed home via the Oodnadatta track.

Aside from the clear benefit of having additional data available to monitor camel congregation events and seasonal movement patterns, the project reinforced the successful partnership of three Natural Resources regional groups working together.

For further information visit:

www.naturalresources.sa.gov.au/alinytjara-wilurara

www.naturalresources.sa.gov.au/aridlands

or contact NR AW's Dan Bailey on 0427 604 254



Habitat Monitoring

Oak Valley and Yalata

In 1984, habitat monitoring sites were established across the Nullarbor to monitor landscape health from the coast to the northern fringe of the Nullarbor Plains.

The biological surveys undertaken at that time provided baseline data for ongoing monitoring of regional environmental changes.

Resampling was undertaken at some sites in 2001. Then in 2012, all sites were re-sampled and re-marked as part of Natural Resources Alinytjara Wilurara's (NR AW) Nullarbor Plains Bio-survey. Additional photopoints were also established in 2012.

AW NRM Board member Brian Queama searching for photopoint in Great Victoria Desert north of Cook



In July 2014, an NR AW team assisted by regional traditional owners and the Yalata Land Management Team revisited seven of the sites to gather data that would allow them to assess the rate and type of changes that may have occurred in the landscape.

Their first challenge was to locate the photopoint sites established during the

Photopoint MU4 (Arid Woodland and Tall Shrubland)



1984



2012



2014

1984 bio-survey. These were spread across a vast area, most being several hundred kilometres apart in areas with little or no infrastructure in place.

Each site was then photographed as closely as possible from the same position/angle as the earlier images. This allows ready comparison with past images of habitat changes. The three centre images from top to bottom show gradual change over a 30 year period.

Adam Pennington (NR AW's Landscape Ecologist) and Graeme Armstrong (NR AW's Fire Management and

Adam, Graeme and Sandro at Aru comparing past images with today's landscape





Tommy Baker contemplating the days work ahead

Planning Officer) began by re-sampling two photopoint sites in the coastal vegetation around Merdeyerrah Sandpatch (near the WA border). They then travelled to the Yalata Indigenous Protected Area (IPA), over 200 kms away, to re-sample two more sites.

With the assistance of members of the Yalata Land Management Team, (Teddy and Aaron Edwards, Adrian Brown ‘Bubbles’, Brian Queama, and Land Management Coordinator Sandro Madonna), Adam and Graeme were able to locate and monitor several sites previously visited across the Nullarbor.

Meanwhile, Nathan Williams (AW Project Officer) travelled up from Ceduna to Oak Valley (over 400km) to organize a trip to Aru Rockhole (about 120km south west of Oak Valley and 60km north of Cook), with local traditional owner Tommy Baker.

After a 5 hour drive Nathan and Tommy met up with Adam, Graeme and the Yalata Land Management team at Aru. The group located the bio-survey site and compared the current landscape with images taken thirty years ago.

After camping the night at the rockhole the group continued north to re-sample two more photopoints along Vokes Hill-Cook Road. While searching the

area, two unmarked blowholes were discovered.

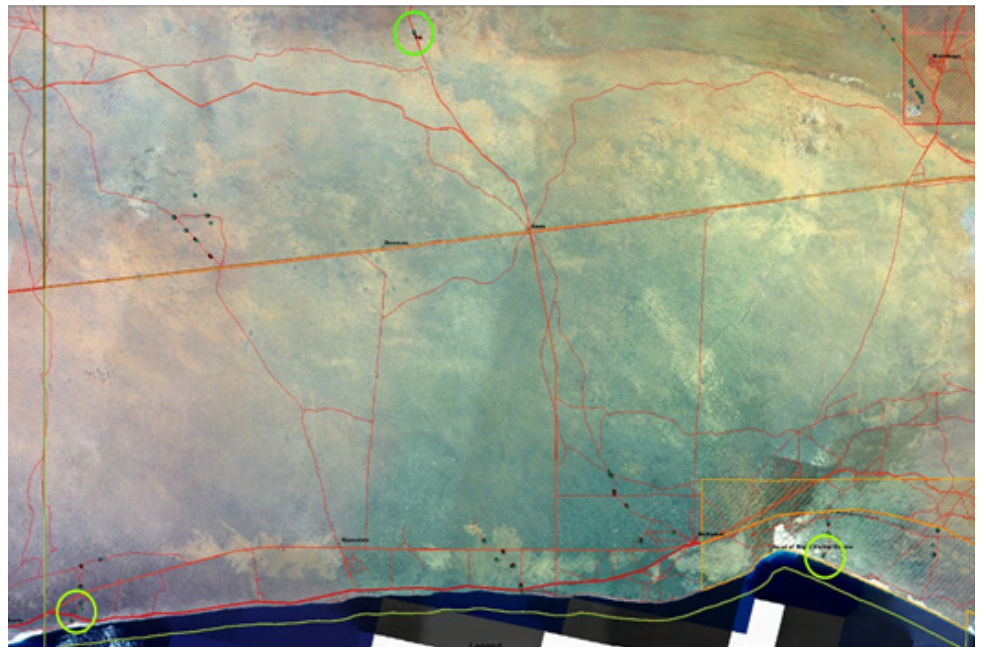
Twelve hectares were monitored in total during this project across a vast array of landscapes. The table below provides a summary of changes noted during the three monitoring intervals.

With a successful expedition behind them the YLM crew headed back to Yalata and Adam and Graeme to Maralinga.

Nathan stayed in Oak Valley to have a movie night with the local youths before heading back to Yalata.

Site	Vegetation Type	1984-2012	2012-2014	1984-2014
ME1	Mallee	Minor change	No Change	Minor Change
ME2	Mallee	Minor Change	N/A	Minor Change
MU3	Arid Woodland & Tall Shrub land	Moderate Change	Minor Change	Moderate Change
MU4	Arid Woodland & Tall Shrub land	Moderate Change	Minor Change	Moderate Change
MU5	Arid Woodland & Tall Shrub land	Minor Change	N/A	Moderate Change
YA1	Semi-Arid Woodland	Moderate Change	No Change	Moderate Change
YA2	Semi-Arid Woodland	Moderate Change	N/A	Moderate Change

Location of photopoints sampled during the field trip (green circles)



Adam holding a Yalata photopoint identification board



Graeme given a new hat to 'keep his hair under control'





Tjulpu, Wipu Wira and Para in Maralinga Tjarutja

Birds, Long-tailed Parrots and Marble Gums in Maralinga Tjarutja



Wipu Waga (Long-tailed Parrot) in flight. Photo Sue Bland

Article based on NR AW's Monitoring Plans for Birds and Long-tailed Parrot Habitat written by Harald Ehmann

Anangu have long monitored tjulpu (birds) and plants such as Para (Marble Gums) to understand the health of their land in Maralinga Tjarutja.

Natural Resources Alinytjara Wilurara's (NR AW) projects for the monitoring of bird species and their habitat are being undertaken to provide insight into landscape health and to inform natural resource management activities and practices. Such information can be applied to get good outcomes for the birds, the community, for biodiversity and for the broader national and global beneficiaries.

This is Anangu land so the over arching aim is that the monitoring work will, in the near future, be conducted by Anangu in the course of their regular land management activities and employment. These activities need to be appropriately supported and funded for the ecosystem services that the vast Maralinga Tjarutja landscapes provide to all Australians.

The Bird Monitoring Plan provides for the establishment of a base-line data set for future ongoing monitoring and comparisons to track and, if possible, manage adverse changes. Fire ecology is an essential part of this work.

Monitoring Program

In July this year Harald Ehmann (NR AW contractor), members of the Maralinga Tjarutja community and

bird experts, Neil Matthews and Lynton Huxley (Friends of the Great Victoria Desert) got together to kick off the first phase of the *Bird Monitoring and Wipu Waga (Princess Parrot) Habitat Monitoring* projects.

Starting in July this year, the initial project was conducted over 10 days during which time the group travelled approximately 2100 kms, mostly on unsealed tracks, to collect bird and habitat information and to determine best areas for monitoring.

Much of the seven days spent in Maralinga Tjarutja involved travelling to the north west of Oak Valley, as well as trips between Oak Valley and the field area.

Consultations

Harald Ehmann undertook twelve community consultation meetings in total at both Ceduna and Oak Valley. In Ceduna, Maralinga Tjarutja Elder Mr Richard Lebois (Cultural Adviser MT Lands) provided important guidelines for the work. In Oak Valley, Elder Mr Tommy Baker, along with eight other wati (men): Thomas Sandimar, Parka Hogan, Nathan Ginger, Derek Jamieson, Clayton Queama, Leon Brown, Roger Williams, and Lance Ingomar advised and collaborated to determine locations, timing and to share knowledge.

A significant part of the consultations, and the associated field work, occurred

during a two-day field trip with Elder Tommy Baker, Thomas, Parka, Nathan and Derek. Unfortunately, although the others involved in the consultation phase were keen to participate in the field work and site placements, they were not able to come due to important prior commitments.

Preparation meetings were also held in Ceduna and in Oak Valley with Maralinga Tjarutja's General Manager Mr Richard Preece, and Oak Valley staff. In addition to the above meetings, consultative, work preparation and reporting meetings were held in Ceduna and Oak Valley with Natural Resources Alinytjara Wilurara staff: Saras Kumar (Manager Protected Areas & Public Lands), Erin Gibson (Community Programs Coordinator), Nathan Williams (Community Project Officer), Graeme Armstrong (Fire Management Officer), and Lynda Marshall (Buffel Grass Coordinator).

Para (Marble Gums) are the favoured nesting habitat of Wipu Waga (Long-tailed Parrot) photo Harald Ehmann





Elder Tommy Baker, Harald Ehmann, Derek Jamieson, Thomas Sandimar, Parka Hogan and Nathan Ginger consulting about monitoring activities and the setting up of monitoring sites in dunefield country of western Maralinga Tjarutja (photo Neil Matthews)



Derek Jamieson, Lynton Huxley (hidden), Neil Matthews and Thomas Sandimar observing birds (photo Harald Ehmann)

Field work

During the day, and particularly between daybreak to 11am, and 3pm to sundown, the group looked for (using binoculars) and listened for bird calls. Aside from birds in flight and in the trees, they also looked for tracks, especially those of Nganamara (Malleefowl), Kipara (Bustard), Wipu Wara (Long-tailed Parrot), and other bird species. They also looked for feathers, nests, feathers within nests, bodies and remains from predator kills or natural death.

Sound recordings of the dusk and the dawn choruses were also made for later identification by an expert.

The monitoring sites are an area between four and 20ha of a representative and similar vegetation association. The vegetation, recent fire

evidence, landscape, and soil at each bird monitoring site was recorded. The sites will be scored on subsequent visits to assess change.

The field work's focus was three-fold:

1. mapping of Para (Marble Gums) distribution from satellite imagery and development of reportable understandings of the ecology of significant vegetation (esp Para) and birds, and the part that fire plays in the life paths of Para
2. to determine general placement and specific placement of monitoring sites for Wipu Wara habitats (esp Para trees) and monitoring sites and transects for all birds, including Wipu Wara
3. to prepare for the follow up field work in August with the FoGVD such as where to camp, track conditions, best routing, and optimising safety factors.

The following were also investigated:

1. Para (Marble Gums) distribution, ground-truthing of trees that can be seen on satellite images, responses to fire and fire impact minimisation, reproductive and growth and recovery strategies
2. The impacts, extent and complexities of the eight known-age fires from 1998 to 2012.
3. A bird list with accurate locations (GPS) of sightings was generated and comprises 34 species including one Scarlet-chested Parrot and five Elegant Parrots, but Wipu Wara were not seen.

The follow up field work in late August has just been completed with some exiting results that will be in the December's edition of *Caring for Country*.

Red-backed Kingfisher (photo Sue Bland)

Planning field work and monitoring design in the Ceduna NRC Graeme Armstrong, Harald Ehmann and Neil Matthews (photo Patrick O'Connor)





Track based monitoring Maralinga Tjarutja lands

Based on the Biodiversity Conservation Program and Department of Environment and Natural Resources Report by Richard Southgate (Envisage Environmental Services)

Using an old methodology in a contemporary context to find and record animal tracks across the Maralinga Tjarutja Lands has provided a revealing insight into the various species that inhabit the region and their numbers.

Track-based monitoring was first undertaken by Natural Resources Alinytjara Wilurara in 2007 followed by further surveys in 2009, 2011 and 2013.

The location and tracks of various medium and large-sized animals were recorded including feral cat, red fox, dingo, European rabbit, camel, red kangaroo, grey kangaroo, malleefowl, bush turkey, emu and hopping mice.

In partnership with Traditional Owners and Land Management, the study was undertaken within a 75000 km² area of arid non-pastoral land of South Australia dominated by mallee and spinifex.

Traditional Owners and researchers used the characteristics of the animal imprints and gait patterns to identify the species.

Two hectare plots were traversed and searched for animal imprints situated at least 30 m from access tracks. A

Soft sand access tracks across the region



100 m section of the access track adjacent to the plot was also sampled separately. Most plots were located at least 5 km apart.

During 2007 and 2009, 215 plots were sampled to assess the broad distribution of species. In the period 2009-2013 a selection of these plots was sampled multiple times each year. Resampling a plot location provided an opportunity to examine factors affecting the detection of tracks and to determine how consistently a plot was occupied by a species.

This was a new survey method using analytical techniques; no previous methodology has systematically monitored the relative abundance and distribution of threatened species and invasive species in Australia at a scale that can be used to accurately estimate occupancy and identify change in regional distribution and status.

The medium-sized terrestrial vertebrates that can be monitored include most of the Environment Protection and Biodiversity Conservation listed threatened native species and the key invasive species causing a threat i.e. cat, fox and rabbit.

The survey identified widespread and broadly overlapping invasive and naturalized predators.

Of the invasive species:

- signs of fox were more commonly encountered than that of feral cat and dingo
- sign of rabbit and camel were also widespread and common.

Red kangaroo tracks



Grey kangaroo tracks

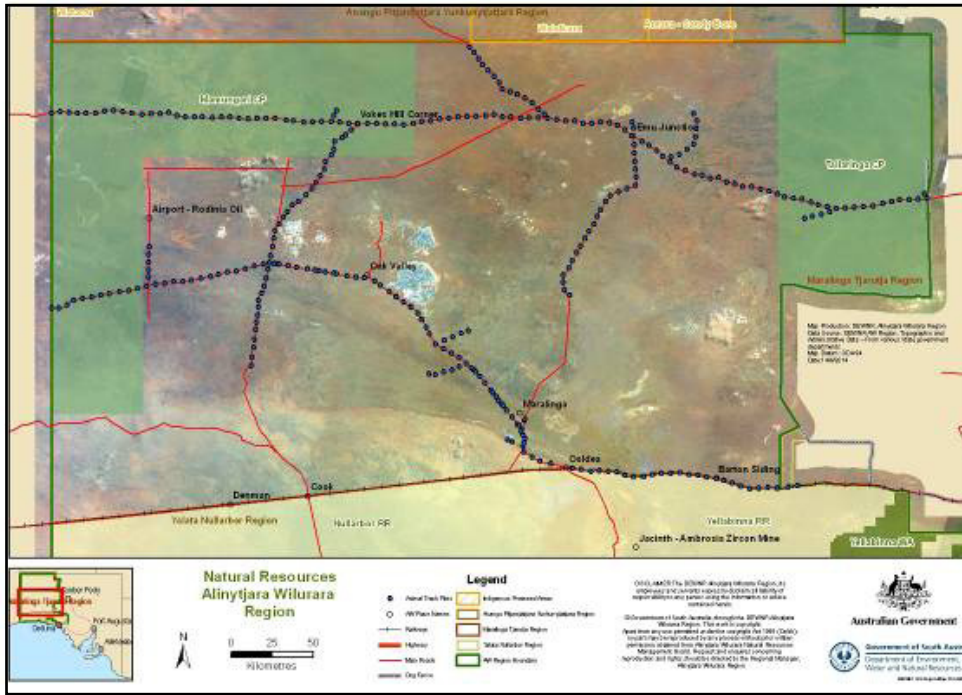


Rabbit tracks



Camel tracks





Location of the study area and distribution of monitoring plots

Of the native species:

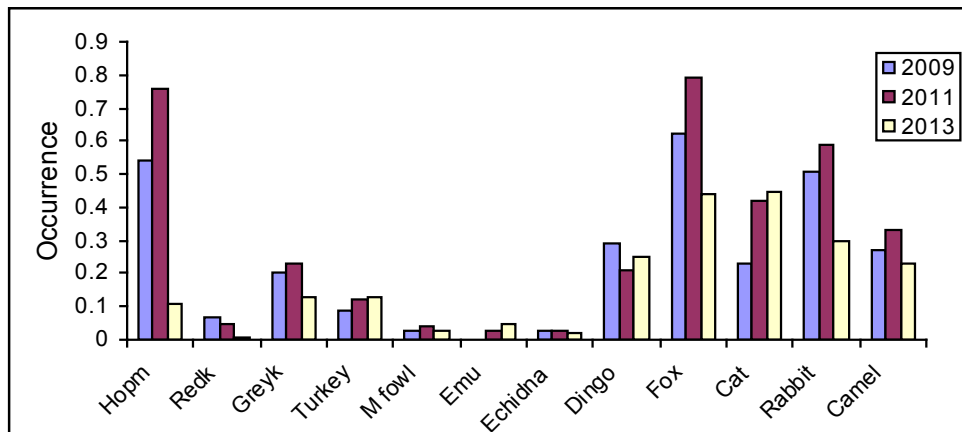
- the smallest and most widespread were the hopping mouse (Notomys spp.)
- grey kangaroo sign was common in parts of the study area and more common than red kangaroo
- sign of bush turkey was more commonly encountered than mallee fowl or emu
- signs of echidna were rarely encountered.

Following a 12 month period of exceptional rainfall during 2010, the signs of most species increased markedly except for red kangaroo and dingo. The wet years were followed by a very dry period and a dramatic decline in prevalence of most species

was recorded in the 2013 surveys. The only relatively abundant species that maintained prevalence was the feral cat. Rainfall in the period April 2012 to May 2013 was less than half the average.

The rapid decline in occurrence of species following the period of exceptional rainfall in 2010-2011 was unexpected. It was anticipated that a flush of resources produced during the wet years would sustain animal populations, particularly that of the larger species, for a several years. Instead, by 2013 the occurrence of several species including the rabbit, red and grey kangaroos and red fox had dropped to the lowest levels recorded during the study.

Change in occurrence of target species based on sampling in 2009, 2011 and 2013



Dingo tracks (larger) in comparison to feral cat tracks



Dingo tracks

Occurrence of a few species like the feral cat and emu increased marginally and the some like the dingo, mallee fowl remained largely unchanged. The events indicated the extreme variability of climate within the region and the changeable nature of the fauna community.

Indigenous Involvement

Community people from Oak Valley, many of whom already possessed very good traditional tracking skills, gained experience in implementing the monitoring technique through their involvement in the study.

Richard Southgate (AW Consultant) noted that, ideally, more time would be spent sampling each plot and discussing tracking conditions and species identification to allow Anangu to become familiar with monitoring objectives and data collection protocols. He suggested that field camps provided the best situation for training. This was demonstrated during the 2012 camps undertaken for sand hill dunnart trapping and mallee fowl monitoring.

He also noted that Anangu located in Oak Valley are well placed to deliver monitoring programs in the Maralinga Tjarutja Lands because the field work can be implemented flexibly around adverse weather conditions.



Yalata Coast Community works on 2014 Marine Debris Survey

Yalata ladies working on Marine Debris Survey

The impact of marine debris on marine life continues to be of concern along the coast of the Yalata Indigenous Protected Area (IPA) and inside the boundaries of the Great Australian Bight Marine Park. A coastal survey was undertaken in August to determine the amount and type of marine debris washing onto this section of coast in order to inform future management strategies and reduce impacts on local marine life.

This survey builds on a body of data collected previously from surveys undertaken over the past four years by Natural Resources Alinytjara Wilurara (NR AW) in partnership with Yalata Community.

Rope and plastic are most commonly found along the coastline of the region and management strategies need to be put in place to reduce threats to coast and marine species that could potentially ingest and/or be caught up in the debris.

The Marine Debris surveys are run once a year at 3 sites. Debris from within a 1km transect is collected, sorted, analysed, measured and weighed to determine the quantity



and weight of different types occurring along the coastline. It is then classified according to its composition such as hard plastic, soft plastics, rope, metal etc. Samples of fishing nets found are collected and identifying characteristics are noted.

“Working together with the Yalata Community was a great opportunity to increase local awareness and education about threats to marine mammals and wildlife associated with rubbish and marine debris” said Yasmin Wolf (NR AW Coast and Marine Officer) who headed up the project.

The ten women from Yalata who were employed to undertake the survey were joined by volunteers, Clarisse Gibson and Pam Diment. All the ladies who worked on the collection learned about the monitoring techniques and land care practices that they can share with their community.

Yasmin Wolf talking with Sophia Gibson, Doris Bryant, Brenda Day, Irene Peters and Roslyn Mervin



Preparation

A safety meeting was held before work started to ensure that the ladies from Yalata and volunteers were clear about risks, (eg sharp objects) and safe practices. PPE equipment was then distributed.

An information session was also held about why the surveys were being undertaken i.e. to reduce threats to marine species, and to be aware of possible sources of debris.

Yasmin provided on site training in how to sort the collected debris into weight, length and type.

Rope netting was sampled and attendees were informed about ways in which to identify possible sources of netting due to colour and size of mesh.

Sophia Gibson (from Yalata), trained in operating a GPS and took responsibility for telling the group when they had reached either side of a transect.



Irene Peters weighing the beach debris

Undertaking the surveys

Yasmin, accompanied by Jessica Viersma (Jess), the Yalata Women’s Centre Coordinator and three other ladies contracted from Yalata undertook the first Marine Debris survey at Mexican Hat Beach where, in addition to covering the established transect, they managed to clean up five kms of beach and campsites to reduce the spread of debris to the beach area.

The collected debris was sorted and recorded before being taken to Ceduna.

Jess, ten ladies contracted from Yalata and volunteer Clarissa Gibson did a 2km survey and clean up at Twin Rocks leaving the debris above the high tide mark to be picked up using the ATV the following day.

Yasmin, Dirk Holmann (Great Australian Bight Marine Park Manager), Sandro Madonna (Yalata Land Management Coordinator along with four Land Management Rangers and volunteers later joined them and helped with the additional 5km beach cleanup work and debris collection.

The Yalata Land Management (YLM) Coordinator Sandro Madonna and

Aaron Edwards sorting debris into types



Melissa Windlass bringing in more beach debris

three YLM Rangers also joined the working party and undertook a 6 km beach clean-up from Twin Rocks to past Hilton Campsite.

Yasmin and Dirk then moved on to Merdeyerrah Sandpatch where they surveyed, collected, sorted and weighed debris from over 6 kms of coastline.

What was found

Rope and plastics were the largest components of the debris with 126.8kg of plastics, including 60.7kg of rope removed from the beach. In total 301.35kg of marine debris was collected during the surveys.

Crafty use of marine debris

A two week workshop held in September is producing an eye catching array of sculptures made from debris collected in the Marine Debris Surveys. The resulting creations will definitely attract attention and encourage people to really think about what ends up in the ocean.

A sneak preview of sculpture works in progress: ‘Fish’ created by Estell Miller



Message in a Bottle found

Discovering that a bottle washed up onto Yalata Beach (250 kms west of Ceduna) contained a message was certainly an unexpected find for AW Project Officers Paul Gregory and Nathan Williams

“AW undertake marine debris surveys each year - usually we find lots of ropes and plastics so finding an unbroken bottle that actually had a message inside was the highlight of the my day” said Paul.

The message dated 23/01/14 read:

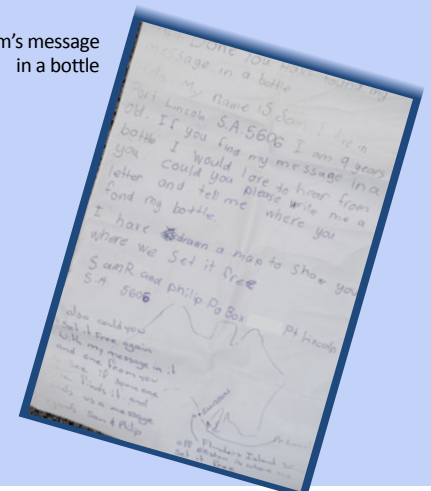
Well done you have found my message in a bottle. Hello my name is Sam I live in Port Lincoln SA 5606 I am 9 years old. If you find my message in a bottle I would love to hear from you, could you please write me a letter and tell me where you found my bottle.

I have drawn a map to show you where we set it free (map of Australia drawn showing Pt Lincoln and Elliston and pointing to Flinders Island).

Sam also asked whoever found it to set it (the bottle) free again in the hope that he might hear from someone else. He signed it Sam and Philip.

Naturally Paul sent a letter to the address Sam had included, telling him where it was found and reassuring him that he had indeed “freed” the bottle to see where it might be found again.

Sam’s message in a bottle





Threatened species, an Australian Sea Lion



Lads from Yalata enjoying their local beach pools. Photo courtesy of Nathan Williams

Sustainability of state's marine environment assured

Minister for Sustainability, Environment and Conservation Ian Hunter says Parliament's decision to reject the Liberal opposition's Marine Parks Amendment Bill was a victory for the state's unique marine environment and for the economic future of regional communities.

"Today marks a watershed moment for the protection, sustainability and future viability of South Australia's marine environment," Mr Hunter said.

"These unique and ecologically important areas will now be insured against emerging impacts of climate change, coastal development and increasing demand for natural resources.

"It is important to remember that the sanctuary zones represent only six per cent of the state's waters. Contained within these zones are some of our most iconic and ecologically significant plant and animal species"

The introduction of Marine Park Areas in South Australia is the result of 10 years of planning, involving extensive consultation with local communities, industry and other stakeholders.

"More than 8600 written submissions were received and as a result more than 50 amendments were made to

the zones. Unlike the Liberal opposition the Government's marine park legislation is based on science, and is the result of exhaustive consultation," Mr Hunter said.

"The government is committed to its ongoing process of consultation with the South Australian people. We now look forward to working with industry, tourism and recreation groups to ensure sustainable enjoyment and use of our marine environment."

Managing conservation of marine ecosystems, habitats and marine life they support

Marine parks (also referred to as marine protected areas and marine reserves) are special places, underwater parks that are

managed primarily for the conservation of their ecosystems, habitats and the marine life they support. While some people assume that marine parks are closed to fishing and other uses, this is not the case. In Australia, marine parks are multi-use areas and allow a wide range of activities according to different management zones. This may include activities such as recreational and charter fishing; marine tourism such as diving, snorkelling, whale watching; commercial fishing; ports development and shipping; and oil and gas exploration.

Marine parks are an important to ocean conservation to help reduce stress on marine ecosystems. As well as establishing networks of marine parks it is important to ensure our ocean use is better planned, managed and ecologically sustainable, we need to reduce land-based pollution and take action to address climate change.

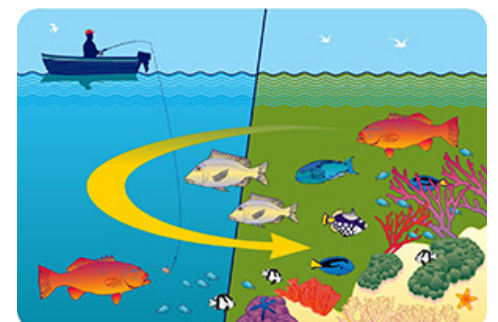
Sanctuary zones

Within marine parks there are often highly protected areas called sanctuary zones, green zones, marine national parks or no-take zones. These areas are similar to national parks on land - areas

Recreational fishermen at Yalata Beach



The 'spillover effect' of sanctuary zones



Fishing restrictions in sanctuary zones start **1 October 2014**
Find out where you can fish at www.environment.sa.gov.au/marineparks



AW's Paul Gregory proudly holds the mulloway he caught



Southern Right Whale mother and calf in the waters off Head of Bight. Photo courtesy of Yasmin Wolf

where wildlife and their habitats are fully protected from extractive industries such as fishing and oil and gas exploration.

Anyone can enter sanctuary zones. They are designated sanctuaries - natural places where people can boat, swim, snorkel and dive. They are far from being places that are 'locked up' – they are places where ocean life is protected and people can see nature at its best.

The 'spillover effect' of sanctuary zones. Image by GBRMPA. Sanctuary zones are vital for the protection of the ocean's rich diversity of life. They allow fish to spawn and grow, provide unspoilt natural sites where people can visit and offer areas for education and research. Sanctuary zones offer a way to protect our unique, vulnerable marine life and the habitats they depend on. They have been scientifically proven to encourage

growth and recovery of stocks of fish and marine life - benefits that can then flow over into areas open to fishing.

The equation is simple - if you leave fish to breed and replenish, over time there will be greater numbers of bigger fish.

We all stand to benefit from better protected oceans. Sanctuary zones act as an insurance policy, and help us to provide a lasting legacy for future generations.

Managing conservation of marine ecosystems, habitats and marine life they support courtesy of Australian Marine Conservation Society

Tips for Distance Drivers: Think Carefully

If we believe people matter, then we will take care not endanger or inconvenience other road users.

Practical, safety and courteous tips:

- When oncoming traffic is approaching your vehicle is often “towing” a large cloud of dust. This situation is very dangerous and the cause of many deaths and injuries on outback roads. Neither the approaching vehicle nor you know what is inside that dust cloud, so the sensible, courteous thing to do is to pull as far to the left of the road as possible and slow down. In some cases it is best to stop and allow oncoming vehicles to pass by safely. If nothing else it will reduce the chance of breaking a windscreen.

- Many cattle grids have had the soil eroded away from the approaches so taking the grid at speed is likely to damage a tyre or suspension or even cause you to lose control.
- Overtaking on outback dirt roads can be a difficult task, the best method is to wait and allow yourself extra time to get to your destination.

Many experienced bush drivers will tell you that the average speed you will achieve on dirt roads, allowing for breaks, gate, grids, creeks, cattle and other hazards is 60 to 70km/hr. So, if you are not planning your trips around an average of 60km/hour, you are not allowing enough time and will be tempted to go too fast.

Remember that on dirt roads, simply slowing down and moving to the left of the road when encountering

an oncoming car means you have reduced the chance of breaking someone’s windscreen and possibly causing them to have an accident.

Showering people and cars with dust and stones by driving too fast is not only dangerous but shows a general lack of respect. Have a little patience with other drivers and remember you cannot control their driving behaviour, but you can always set a good example.



Courtesy of David Oag and Peter Newman, *Bush and Bitumen*, DEWNR SAAL Region

Parry Agius
Presiding Member



AW NRM Board

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PEOPLE, COUNTRY, WATER of the Alinytjara Wilurara

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