Natural Resources
Alinytjara Wilurara

Summer 2016

Palya!

STRONG PEOPLE HEALTHY COUNTRY and WATER

Anangu Kunpu, Ngura Kunpu munu Kapi

Government of South Australia
Alinytjara Wilurara Natural Resources Management Board

Australian Government

From the Regional Director, *Natural Resources Alinytjara Wilu̲rara*

Welcome to the 2016/17 Summer edition of Palya, where we share stories from the Alinytjara Wilu̲rara Natural Resources Management Board and DEWNR's Natural Resources Alinytjara Wilu̲rara (NR AW) team.

This year we've continued our Healthy Country Planning in partnership with AW communities and Co-management Boards. This local-level planning approach is providing us with a suite of Healthy Country Plans that have been developed with key land-holding authorities and communities of the region. The Far West Coast Healthy Country Plan was recently completed, and endorsed by FWC Aboriginal Corporation at its November AGM. NR AW now plans to start working with APY on Healthy Country Planning in 2017.

Over the past six months we've also been busy delivering our on-ground works program to manage threats (such as Buffel grass and feral animal management, including removal of 1100 camels, 100 brumbies and 300 donkeys), and threatened species management (including Sandhill Dunnart and Malleefowl monitoring, helping out with warru recovery project, and shorebird monitoring surveys).

As a first for the region, Natural Resources AW undertook a prescribed burn in Yumbarra Conservation Park in partnership with staff from Natural Resources Eyre Peninsula. This was made possible largely through strong relationships forged over time between our two regions, local staff and communities, Councils, Co-management Boards, Far West Coast Aboriginal Corporation and related emergency services agencies.

The NR AW team would like to congratulate our colleague Casey Reynolds who completed the Jobs4Youth traineeship program in mid-2016, and was awarded the Aboriginal Trainee of the Year Award at a ceremony in October.

Wishing you all the best for a safe and happy festive season, and I look forward to working with you in another great year ahead.

Palya,

Fiona Gill
A/Regional Director,
Natural Resources Alinytjara Wilu̲rara

INVITATION

The Alinytjara Wilu̲rara 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:

March 2017, tba

Ceduna Arts and Cultural Centre

Features genuine Aboriginal art
2 Eyre Highway, Ceduna

Where we are and what we do

The Alinytjara Wilu̲rara Natural Resources Management Region covers the northwest quarter of South Australia. In Pitjantjatjara, *alinytjara* means 'north' and *wilu̲rara* 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: Warru Ranger Jacob McKenzie views the surrounding landscape during the warru survey in the Musgrave Ranges. *Photograph taken by Ellen Ryan-Colton*

The 2016 Malleefowl survey team included community members from Oak Valley and Tjuntjuntjara

From the Presiding Member

Welcome to the Summer edition of Palya 2016.

With the holiday season almost upon us I would like to say thank you to all the members of the Board and the DEWNR staff for their hard work and dedication throughout the year.

We have achieved much in the past 12 months, building strong relationships across and beyond the Alinytjara Wilurara region and meeting and planning strategic management goals.

As part of building relationships with strategic partners, the Board signed a Memorandum of Understanding with the Far West Coast Aboriginal Corporation and met with the Eyre Peninsula NRM Board to deepen our understanding of how we might more closely work together in the future.

The Board is also keen to better connect people in the city with the challenges and successes of the work we do in the region. To achieve this we are working with the NR AW team to develop an 'Adelaide Meets the Bush' engagement strategy.

To help support and have a strong voice for our region and the State's Aboriginal people as a whole, I recently became a member of the National Landcare Network and also provide advice on Indigenous engagement around the SA Nuclear debate.

We look forward to 2017 being another successful year in which we support the people of our region to achieve their aspirations for healthy people, country and water.

Parry Agius
Presiding Member
Alinytjara Wilurara Natural Resources Management Board

NRM Collaboration keeps SA's Western regions strong

As a regional first, two neighbouring NRM Boards met in Port Lincoln in August, to learn about each other's unique and common challenges, share their stories of success and develop a deeper understanding of the different landscapes.

At the invitation of the Alinytjara Wilurara Natural Resources Management (AW NRM) Board, members of the Eyre Peninsula (EP) NRM Board joined a combined workshop session to discuss how the Boards might mutually support each other in planning and undertaking future NRM business and on-ground programs.

EP NRM Board Members: (L-R) Mark Whitfield, Diana Laube (Presiding Member) and Simon Clark attended the AW NRM Board meeting. David Farlam (who is not pictured) also attended.

AW NRM Board Members: Standing L-R Gary Lewis, Parry Agius (Presiding Member), Mick Haynes, Peter Miller with Peter Treloar MP. Seated L-R Kristy Richards and Debbie Hansen. Absent: Ian Crombie

Attendees were pleasantly surprised by an impromptu visit by the Member for Flinders Peter Treloar (MP).

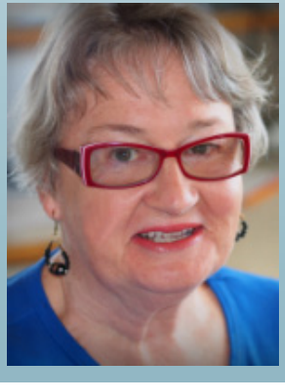
Diana Laube, EP NRM Board's Presiding Member shared insight into the work of the EP Board with the AW NRM Board members. This was followed by a presentation about the AW region by Parry Agius (AW's Presiding Member).

"Although there are many challenges that are unique to our geographic locations we still have much in common. Plants and animals, whether they be native, threatened or feral, are not restrained by borders drawn on maps, so it follows that establishing collaborative alliances with neighbouring NRM regions has the potential to produce more effective and efficient use of resources and knowledge sharing" he said.

With the prospect of deep sea oil exploration being undertaken in the Great Australian Bight in the future, both Boards were keen to consider collaborative management strategies to ensure the health of the AW and EP coastal areas is not put at risk. Since the meeting, it has been decided that exploration plans will not go ahead.

"Our Board greatly appreciated the warmth and genuine commitment shown by the members of the EP Board to supporting a collaborative approach to NRM work across our regions. Such collaboration has already proven highly successful at the Natural Resources Centre in Ceduna where AW and EP staff have worked together for a number of years.

"We look forward to continuing to build on this inaugural meeting and to realising the many benefits of furthering this relationship" said Parry Agius, AW NRM Board Presiding Member.



The Alinytjara Wilurara region is located, in part, above the Eyre Peninsula region and shares NRM management responsibilty of SA's western coastline with the EP NRM Board.

AW NRM Board signs Agreement with FWC

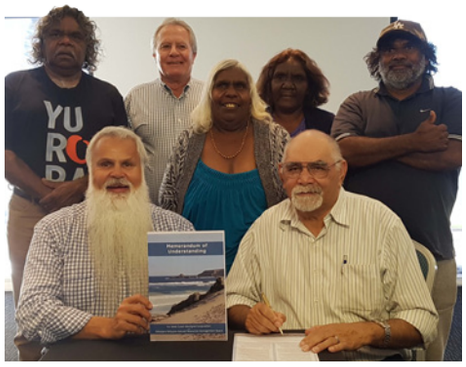
The Alinytjara Wilurara Natural Resources Management (AW NRM) Board was delighted to sign a Memorandum of Understanding (MoU) with the Far West Coast Aboriginal Corporation (FWCAC) at its Board meeting in Adelaide last month.

AW NRM Board's Presiding Member Parry Agius, presented the proposed Agreement to the FWCAC Board of Directors in Ceduna on the 25th of November. At their request a number of minor changes were made before the MoU was finalised.

"This Agreement was developed by both parties in a spirit of cooperation that will help guide our future interactions and ultimately lead to a range of positive outcomes for the people of the Far West Coast" said Peter Miller, Chair of the FWCAC.

The Far West Coast Corporation represents the following Aboriginal peoples in the region through 6 distinct cultural groups: Mirning Peoples, Wirangu Peoples, Yalata Peoples, Kokatha Peoples, Maralinga Tjaratja (Oak Valley) Peoples and the descendants of Edward Roberts.

AW NRM Board members (Back L-R) Gary Lewis, Mick Haynes, Mima Smart (Interpreter) and Debbie Hansen and guest John Mungee at the signing of the MoU Agreement by FWCAC Chair, Peter Miller and the Board's Presiding Member Parry Agius



Far West Coast Parks Co-management Group ***Talk with Community***

Above: Community locals share their thoughts on management of he Far West Coast Parks

In late October members of the Far West Coast Parks Working Group invited the wider community to join them for a barbeque followed by an information and consultation session at the Ceduna Natural Resources Centre. Twenty people came along on the night to discuss Park co-management plans and provided feedback.

Nullarbor Parks Advisory Committee and Yumbarra Conservation Park Co-management Board have been working together to manage the parks and are in the process of developing Park Management Plans. Some of the high-lights shared with the group included: Mt Finke Restoration Project where campsite areas were upgraded, the Fowlers Bay Restoration Project and the installation of toilets at Googs Lake, Koonalda Homestead and Fowlers Bay.

During the consultation, community members helped determine which tracks and areas are commonly used and for what types of activities. They were also asked for suggestions on any issues they felt needed attention. Several suggestions regarding signage were put forward including warning signs about rips along the coast and the placement of signs providing historic and cultural information in the parks.

Plans are currently being developed for all the parks in the Far West Coast Native Title Area including: Fowlers Bay Conservation Park, Laura Bay Conservation Park, Wittelbee Conservation Park, Yellabinna Wilderness Protection Area, Yumbarra Conservation Park, and Nullarbor Wilderness Protection Area.

"We want people to understand that we all need to care for these Parks and that we can do it together. We want to protect them and make sure they will be healthy for a long time" said Leonard Miller, Deputy Chair of the Yumbarra Conservation Park Board.

"Our work is about sharing, not just the land but also our stories and how we are part of this land. We want people to come and enjoy the parks, not just Aboriginal people, but everyone needs to be respectful and understand the unique connection that Aboriginal people share with the land. We want everyone to come together and look after the land for future generations to enjoy" said Aboriginal Elder Wanda Miller from the Yumbarra Conservation Park Board.

"Now that you know who we are and what we want for country we hope that you will come and talk to us about anything to do with Parks" she said.

Leonard Miller

Wanda Miller

Bushfire and Natural Hazards

Cooperative Research Centre makes plan

The Bushfire and Natural Hazards Co-operative Research Centre (CRC) is developing a national research plan that will underpin natural hazards emergency management. The Ten Deserts Workshop supported the process of identifying major natural hazard and disaster resilience issues by hosting a workshop of key stakeholders in Alice Springs on August 17, 2016.

These stakeholders included a suite of experts connected to remote communities and the emergency management sector, one of whom is NR AW's Ecologist Brett Backhouse.

The workshop focused on the key systemic issues around remote communities, risk mitigation and disaster resilience.

Workshop participants were asked to consider the most significant natural hazard issues likely to be faced by remote communities in the next ten years. They also identified which of these could most benefit from the support of research undertaken at a national level.

Information gathered and discussed at the workshop will influence the future research agenda of the Bushfire and Natural Hazards CRC.

Background

Recent experiences of natural disasters and the potential for more frequent and intense weather and other climate events have prompted governments around the world to take action to develop strategies for enhancing the resilience of communities.

Natural hazards have always been part of the Australian landscape. However, the rising costs of disasters have instigated policy documents, such as the Productivity Commission's report on natural disaster funding arrangements and the National Strategy for Disaster Resilience, that build on previous work and highlight the importance of mitigation and resilience activities.

Remote communities are often defined by their vulnerabilities due to extreme economic, environmental and social disadvantage. Combined, these factors affect the resilience of remote communities in a traditional sense. The people in these remote areas of Australia however, feel a cultural responsibility to understand and protect country and this connection to country contributes, at least in part, to build a different kind of internal resilience to natural hazards.

In the event of a natural hazard, individuals and communities in remote areas will not necessarily expect a tailored emergency services response including warnings. In many cases communities and individuals have developed a series of adaptive response cues and behaviours that will enable them to withstand an emergency without external intervention. For instance, in flood times, communities will travel to higher ground based on environmental cues such as bird flight and animal pathways rather than a warning from an official group.

Community capacity building

Being prepared as an individual or community means identifying the risks and taking action to address vulnerabilities. Community engagement is a critical step in supporting communities to build their capacity for sustainable and liveable remote community.

Left: Talking with community members about proposed burn sites near the WA border

Below: Learning new fire protection skills, APY Lands

Photograph by Adam Wood

During the workshop...

The participant experts, including Traditional Owners, considered:

- what being prepared might look like in remote communities
- the levels of preparedness already existing in remote communities and how can it might be developed
- the most effective way to engage community in preparedness.

One of the key outcomes of discussions was acknowledging that although there are a number of existing natural hazard response training packages and materials, only a small proportion have been written for remote Australian communities.

It is important to note that in one remote region alone, there may be 12 languages or dialects spoken. A cross-cultural natural hazard response program that explores land management; burning on country and using fire tools; fire and flood risk and; mitigation for fire, heatwave storm and flood would provide significant support to remote communities.

National Landcare Conference 2016

National Landcare Network Members' Council member (and AW NRM Board's Presiding Member) Parry Agius (left), Jamal LeBois, Regional Landcare Facilitator (centre) and NR AW's Community Engagement Manager, Bruce Macpherson (far right) joined guests at the National Landcare Conference

The National Landcare Conference held in Melbourne this year was attended by Natural Resources Alinytjara Wilurara's Community Engagement Manager, Bruce Macpherson and Regional Landcare Facilitator, Jamal LeBois. The Presiding member of the AW NRM Board Parry Agius, also attended but on this occasion in his role as a member of the National Landcare Network Members' Council.

Jamal, who only recently joined the NR AW team, was pleased to attend a number of workshops and seminars that helped broaden his understanding of National Landcare and the part he plays in supporting it. He also keenly promoted the work being done by the AW NRM Board and its operational team across the region.

The conference focussed strongly on the importance of collaboration and innovation reinforcing that partnerships are key to success.

About the Australian Government National Landcare Programme (NLP)

The NLP provides funding to help support local environmental and sustainable agriculture projects which includes regional natural resource management (NRM) organisations such as NR AW.

Aims of the NLP

The NLP supports:

- increased engagement and participation of the community, including landcare, farmers and Indigenous people, in sustainable natural resource management
- building community awareness of biodiversity values, skills, participation and knowledge, including Indigenous knowledge and participation, to promote conservation and sustainable use of biological diversity
- communities protecting species and natural assets with increased restoration and rehabilitation of the natural environment, including protecting and conserving significant species, ecosystems, ecological communities, places and values
- reducing the loss of natural habitats, degradation and fragmentation; protecting or conserving Matters of National Environmental Significance.

Spotlight on the Sandhill Dunnart

Written and photographed by Brett Backhouse, Natural Resources Alinytjara Wilurara Ecologist

Sandhill Dunnarts are an elusive species known to live in only a few isolated locations within Australia. These are through the Middleback Ranges on the Eyre Peninsula, Queen Victoria Spring Nature Reserve in Western Australia and throughout Yellabinna within the Alinytjara Wilurara region of South Australia.

They were first recorded in 1896 at Lake Amadeus in the Northern Territory, however have not been recorded alive there since. The estimated area of occupancy for the Sandhill Dunnart (*Sminthopsis psammophila*) is estimated at less than 500^{2}km despite the potential range of over 5000^{2}km. As such this species is currently listed under the *Environment Protection and Biodiversity Conservation Act* 1999 (the EPBC Act) as Endangered.

This species of Dunnart is unique in that the underside of the tail is a dark grey to black colour, with a crest of short, bristle-like, black hairs near the tip. They prefer to live in old growth Spinifex (*Triodia sp*) which have not been burnt for many years, providing ample cover from predation. Sandhill Dunnarts are generally classed as carnivore, belonging to the *Dasyurid* family, and will prey upon small reptiles and mammals however the vast bulk of their diet will consist of invertebrates such as spiders, centipedes, cockroaches and crickets. They are generalists in their preferences and will prey switch to more abundant food when required.

Immarna, south east of Oak Valley Community, has long been known as a stronghold of this species, being surveyed regularly since 2005 after the initial discovery of the species at the site in 1987.

This site has undergone some major changes in the last few years with a number of fires burning through the site in 2012 and 2013, which has altered the age structure of the spinifex present. As such, Sandhill Dunnarts have reduced in numbers at the site, however due to the patchiness of the burns across the site, data collected now can be used to assess the re-population of burn sites, and what age and structure class is required for the Sandhill Dunnarts.

This project was undertaken with NR Alinytjara Wilurara staff (Brett Backhouse, Ecologist; Codee Spitzkowsky, NRM Project Officer and Casey Reynolds, Business assistant) and local expert Dr John Read (Ecological Horizons). In addition, two members of the Western Mallee Protection Group (WMPG) and Kokatha representatives Wayne Haseldine and Dennis Hocking assisted with the set up and daily checking of the pits. The entire team also worked on processing (measurements) and identification of the species caught.

A feisty Sandhill Dunnart caught in one of the drop pits is carefully examined by NRM Project Officer Codee Spitzkowsky, before being released

Pale knob-tailed gecko (*Nephrurus laevissimus*)

Mitchell's hopping mouse (*Notomys mitchelli*)

Central military dragon *(Ctenophorus isolepis)*

The primary focus for the survey was to trap at already established sites across a known population of Sandhill Dunnart. This would provide information indicating how this known population was tracking. In addition to the targeted survey for this species, all species of terrestrial fauna within the Immarna region were measured for morphometric parameters to assist with future speciation and classifications across South Australia.

Secondary work focussed on recording the age and height of spinifex grass in the area, measuring the height and width of 50 randomly selected plants at each of the eight trapping sites and across all of the fauna trapping lines.

The data collected from the site will inform future management plans for the Sandhill Dunnart, which may include fire regimes, feral predators and access to areas for exploration purposes.

Monitoring Process

The eight trapping sites suitable for the Sandhill Dunnarts were principally mallee with a spinifex under-storey.

Pit traps were left open for four nights. They were joined with a 300mm aluminium high mesh drift fence which acts as a funnel guiding any terrestrial species towards the open pits. These are checked daily with all animals caught removed, measured (head vent length, tail length, weight and sex) before being marked and released within 50m of the site capture. All data was recorded on data sheets.

Opportunistic bird species were also recorded across the site during the week of surveys.

A total of 394 individuals were caught from 46 different species during the week. Of these 394, a total of five individual Sandhill Dunnarts were recorded from sites 1 and 7. Nine species of mammal were recorded at the site, including one feral species the house mouse (*Mus musculus)*. Seven species of Gecko, 13 species of skink, six species of dragon, three species of goanna and eight species of snake were recorded.

Opportunistic observation recorded a total of 35 bird species and six species of mammal. These were mainly feral species such as fox, cat, rabbit and camel, with grey kangaroo and echidna being the only two natives.

Over 1400 individual Spinifex plants were measured for height and width which will be used to assess the age classes which maybe suitable in the future for the recovery of Sandhill Dunnarts after a fire.

All data will be entered into the state biological database on completion of the fauna survey report, which is being undertaken by Dr John Read.

Road through Immarna dunes

Looking for... *Nganamara*

Malleefowl Survey 2016

Written by Brett Backhouse,
Natural Resources Alinytjara Wilurara Ecologist

Malleefowl survey team 2016

Identifying and mapping evidence of *Nganamara* activity in the remote Maralinga Tjarutja Lands was no small task for the survey team who managed to survey 200km of roadside vegetation in September this year.

On this survey, one of the greatest challenges was coordinating the team of 30 people with many being new to the procedure with the available vehicles.

The survey method used was developed by Dr Joe Bensehmesh, a renowned Malleefowl (*Nganamara*) expert. Dr Bensehmesh has a long history working in the region with the local Traditional Owners on surveys such as this.

Aside from data gathering, one of the key objectives was to provide training for members of the community in order that they be sufficiently skilled to undertake future Nganamara surveys using the same methods and techniques. This would mean that surveys could then be undertaken more frequently in the future.

The collaborative efforts of community members from Oak Valley (SA) and Tjuntjuntjara (WA) in the training and survey work resulted in an extensive coverage of transects within the Maralinga Tjarutja Lands.

Observers walked two kilometre stretches along roads where suitable Malleefowl habitat vegetation was evident. They took with them a Personal Digital Assistant (PDA) device loaded with CyberTracker. When a track or scat was observed, it was recorded on the PDA which would automatically log the corresponding GPS position. This data was down-loaded and mapped each night.

These transects were along main roads, allowing easy access and minimal disturbance to the area. Dr Bensehmesh trained people in the use of data collection units and the identification of Nganamara tracks. Each survey was undertaken by up to four people, most of whom were from the Oak Valley community.

After being dropped off at two kilometre intervals along designated roads, observers walked up to 50

Below: Images caught on remote sensor camera of activity around the nesting mound: Bustard (left), Malleefowl returning to nest (right)

metres out into the mallee observing any signs of animals, principally Nganamara.

A few lucky team members actually managed to spot the elusive birds themselves. Indications of the presence of other species such as cat, fox, camel and rabbit were also observed and recorded.

The team were very pleased when a new active Nganamara mound was discovered. A remote camera was installed beside the mound to monitor activity and provide insight into nesting habits that prove successful. This is particularly important for the recruitment of new birds into the area.

All data collected was download by Dr Benshemesh, and will be added to the national Malleefowl register.

Above: Joe Benshemesh training a member of the survey team in the use of the PDA and Cybertracker

Below: Briefing the team before leaving Oak Valley

Prehistoric Birds of the Nullarbor

Elen Shute (PhD candidate), Gavin Prideaux (Assoc professor) and Trevor Worthy (Research Palaeontologist - fossil birds) Flinders University. Extract from *The Conversation*.

Australia's Nullarbor Plain may be a vast treeless expanse today, but hundreds of thousands of years ago it was home to an array of weird and wonderful species, including two newly discovered extinct "giant cuckoos".

The species belonged to a group of birds called coucals, which are part of the cuckoo family. Unlike the behaviours typically associated with cuckoos of sneaking their eggs into the nests of other birds, these Coucals built nests and raised their own young. The larger of the extinct species would have stood more than half a metre tall and, judging by its bones, probably couldn't fly.

During a 2014 dig at the Thylacoleo Caves, the bones of the two new bird species, *Centropus bairdi* and *Centropus maximu* were discovered in cave sediments determined to be more than 780,000 years old.

The larger species, *Centropus maximus*, is the largest cuckoo known anywhere in the world. It had long, powerful legs, and probably weighed over 1kg, perhaps up to 2kg.

The Pleistocene era was a time of environmental upheaval around the world. Successive ice ages caused sea levels to rise and fall, and temperatures and rainfall to fluctuate.

Researchers don't know when these coucals went extinct, or what killed them, but this is one group where we can probably discount human hunting, as today's coucals are reported to taste and smell appalling. It seems more likely that they died out when their habitat changed.

Rare as hen's teeth

Only ten extinct bird species have been recorded from the Pleistocene era, 2.5 million to 11,700 years ago from Australia.

Extinct Pleistocene birds include the large megapodes, which were ancestors of the Malleefowl in the Nullarbor region.

Famous British ornithologist, John Gould (1804-1881) classified Malleefowl with the generic name *Leipoa*, meaning 'the bird that leaves its eggs.

The local Traditional Owners' name for Malleefowl is *Nganamara.*

The femur of a modern Coucal Centropus phasianinus (left) looks puny next to the bones of the extinct Nullarbor species Centropus bairdi (middle) and Centropus maximus (right)

photo: Elen Shute theconversation.com

The larger extinct species would have stood more than half a metre tall and probably couldn't fly


Photo: courtesy of www.telegraph.co.uk

Camel Browse Monitoring

understanding the impact of feral animals on vegetation

A recent survey undertaken to assess the extent of damage to vegetation by large feral herbivores within the Maralinga Tjarutja Lands revealed some worrying results.

Natural Resources Alinytjara Wilurara's Ecologist Brett Backhouse and Coordinator, Program Development and Reporting Adam Wood, undertook the survey over three days in November this year. Using data recorded in 2009 they returned to a number of sites to observe impacts that had occurred in the past 7 years.

They were joined by Traditional Owners Clayton Queama, Russel Gibson, Nathanial Williams and Milton Kugena from Oak Valley Community who worked on the survey scanning the area and recording data.

Quandong are high in vitamin C and as such are important bush tucker for local communities. Unfortunately it is also a preferred tree species of camels. The camel's technique of feeding causes wide-scale severe damage to the trees, stripping foliage from any branches within reach to the extent that it can cause the tree to die.


Above: 2009 survey Below: same tree in 2016

Adam Wood recording data beside a quandong tree in 2009 survey. Right - the same tree in 2016 showing clear signs of damage caused by camel browsing

One hundred quandong, *Santalum acuminata,* were initially surveyed in 2009 for evidence of camel (*Camelus dromedarius*) browse impact by assessing the trees for signs of broken branches, recording evidence of camels and photographing trees. In addition to revisiting these sites, a further 30 were assessed along the same track, and 70 more recorded along other tracks. This will mean that comparison data can be collected from differing areas, and broaden the understanding of impacts.

Survey Method

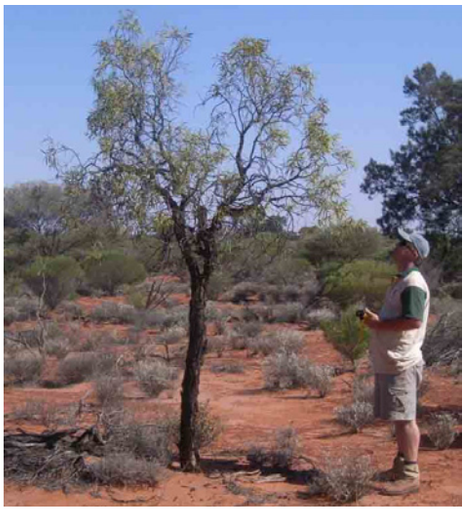
Quandong sighted within 100m of the designated track are recorded, assigned a number and assessed. This includes ranking grazing intensity, recording if any branches are broken, how long ago (days, weeks, months, years) and the percent broken.

Future plans

In late 2015 a large scale cull was undertaken of 3000 camels in close proximity to survey sites.

NR AW will continue to monitor and undertake management actions such as this to see the extent of improvement in the health of quandong within the Maralinga Tjarutja Lands, and if there is any increase in population regenerations.

A number of new transects were established during this survey and there are plans to increase the number of trees being monitored into the future.



Top - undamaged quandong tree (2009 survey)
Bottom - Milton Kugena beside the same tree in 2016

Buffel Grass: the fight goes on....

Halting the spread of Buffel grass into the vast and relatively pristine Great Victoria Desert (GVD) presents many challenges for a committed group of Northern Territory, South Australian and Western Australian land managers and related experts.

Meeting this important goal is part of the Ten Deserts initiative supported by Pew Charitable Trusts.

In South Australia, Natural Resources Alinytjara Wilurara (NR AW) is taking the lead on working towards a Buffel Free GVD, while in Western Australia Spinifex Land Management supported by Rangelands NRM are playing a collaborative crucial role.

Vision for the GVD

The vision for the GVD is that within the next 10 years:

- all sites that are currently Buffel grass free remain so with cultural and conservation sites closely monitored
- all corridors (rail, roads and tracks) where Buffel grass may be spread into the GVD are managed
- current areas of infestation are eradicated and new occurrences are managed before infestation occurs
- adequate resources available for community to manage Buffel grass

‘Tjanpi mamu wiya’

No devil grass

In the neighbouring APY Lands Buffel grass continues to grow and is getting worse because of fire and heavy rain falls. It has spread along the roads and is starting to inundate the ranges.

Through a well supported strategic plan it is hoped that in the future Buffel grass can also be significantly reduced in the APY Lands so that:

- native grasses grow and provide food and habitat for native animals
- trees are healthy and not damaged by high intensity Buffel grass fires - supporting native bird life to flourish
- abundant *Wangunu* (seeds) for food
- bush tucker returns
- cultural sites return to pre-infestation health
- very long term... NO Buffel grass.

Strategic Planning

The Buffel Free GVD Working Group have much to consider in developing the Strategic Plan not the least of which is how to obtain long-term funding.

Their role also includes:

- maintaining a full-time presence with the ability to sustain skills in leadership, data, facilitation, and stakeholder engagement
- providing project strategic coherence
- identifying and engaging stakeholders
- supporting community engagement and relationship building across the initiative
- managing data collection and analysis.

For further information contact:
Jimmy Cocking on 0423 511 93
coordinator@tendeserts.org

2016 Warru survey shows a promising future

Written by Magdalena Zabek

Over the past decade, the Warru Recovery Team (WRT) and employees from the APY Lands have undertaken numerous black-footed rock wallaby (warru) trapping surveys. Their hard work and dedication has been rewarded this year with the survey revealing many positive signs of increasing warru numbers and resilience.

Performed annually until 2014 and every second year thereafter, this marked the 11th trapping survey in the Musgrave and Tomkinson Ranges, located in the north-east and north-west of the APY Lands in South Australia.

The survey teams consisted of indigenous rangers, Traditional Owners, IPA coordinators, project officers, ecologists and volunteers who came from the APY Lands, interstate and overseas. Regardless of age, nationality or occupation, they all shared one thing in common – a passion for the preservation of the APY Lands' black-footed rock wallaby.

Considered one of South Australia's most endangered species, *warru* numbers and range had contracted dramatically over the past 80 years in South Australia, particularly in the APY Lands.

Over the course of a week in July this year, trapping teams climbed some of the tallest hills in the APY's Musgrave and Tomkinson Ranges. Careful preparation and a committed effort during the survey week paid off with many previously un-trapped warru being recorded.

A total of 53 warru were trapped in the Musgrave Ranges with 22 of those having not been caught before. In the Tomkinson Ranges, a total of 12 warru were trapped with five of those previously unrecorded in previous surveys.

Top: Harry Wheoki and Ethan Dagg set up traps in the Musgrave Ranges Photographed by Magdalena Zabek

Below: Warru Ranger Elisha Roesch releases a warru after fitting it with a microchip and an ear tag
Photographed by Ethan Dagg

Below right: Jacob McKenzie comforts a young warru waiting to have its details recorded
Photographed by Ellen Ryan-Colton


Photographed by Ethan Dagg

Analysed data indicated that trapping sites in the Musgrave and Tomkinson Ranges are occupied by at least 80 warru. We know that the warru population in these ranges extends much further than the small areas where trapping occurred, so the number of warru is likely an underestimate of the total status of the meta-population in the APY Lands.

Trapping surveys provide information about the wellbeing of the warru population. Nearly all females trapped had pouch young, indicating high breeding rates and the proportion of re-trapped adult warru from previous years suggested high survivorship of adult individuals. The ongoing feral predator management program together with the recent abundance of food in the Musgrave Ranges are likely to have contributed to this year's positive survey results.

The information gathered from this year's trapping survey is valuable to the warru translocation project. Next year the team plan to release a colony of semi-captive warru that were carefully cross-fostered and bred in captivity in Monarto Zoo. Over the last five years, the semi-captive animals have been kept in a specially designed predator-free enclosure in APY Lands.

It is hoped that these semi-captive warru will be released together with wild individuals from Musgrave Ranges into a new release site at Wamitjara, where warru previously existed. This translocation will go a long way to filling the vision of the Warru Recovery Team of reversing population decline and restoring warru to their former range and where their story (*Tjukurpa)* can continue.

Warru rangers set off across the high country in the Tomkinson Ranges.
Photograph by Christopher Dodd

Looking after Country

Kanpi/Nyapari

In September this year Project Manager Clint Taylor set out with Traditional Owners Aaron and Sammy Ken from Nyapari Community and Jonathon Lyons, Harold Lyons, Adrian Watson and Jeremiah James from Angatja/Amata communities to check the spread of Buffel grass growing along roadsides around Kanpi/Nyapari in the APY Lands.

The group mapped 70km of road, recording the sites where Buffel grass had spread and where plants occurred in isolation, destroying them.

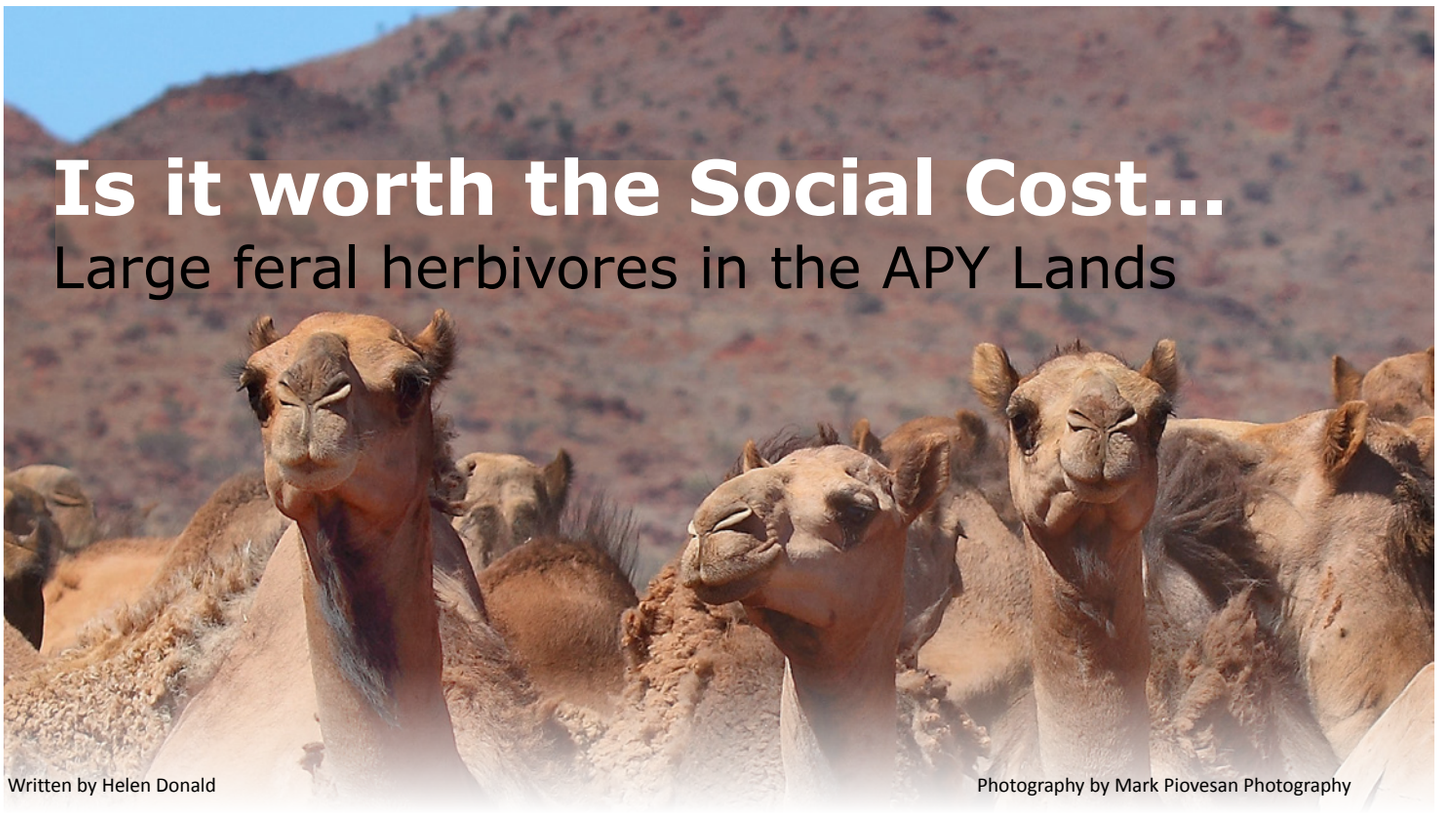
When working around Angatja, the men were very keen to take the opportunity to clean up around the rockholes in their country. Guided by Jonathon Lyons they dug out the silt filled rock holes and cleared away unwanted vegetation.

These sites not only have cultural significance to the local Traditional Owners but in most cases provide the only potable water for the region's wildlife.


Photos by Clint Taylor

Is it worth the Social Cost...

Large feral herbivores in the APY Lands



Written by Helen Donald

Photography by Mark Piovesan Photography

Natural Resources Alinytjara Wilurara (NR AW) has for many years shared the concerns of the people who live and travel through the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands, about the serious health and safety issues that large feral herbivores present in the region.

In July 2016 a comprehensive, academically peer-reviewed study was undertaken on behalf of NR AW by Rural Solutions SA to determine the impact (positive and negative) of pest animals in the APY Lands.

Although there are no official statistics on large feral herbivore populations within the APY Lands current estimates provided by relevant environment agencies are:

- Camels: approx. 45,000
- Horses: approx. 5,700
- Donkeys: approx. 5,000

The study considered the impact of these animals across environmental, economic, and social/cultural categories. Associated approximations of financial costs are indicated below:

Financial Impacts

- $4.2 million per annum costs
- $141,000 per annum benefits
- **net cost impact – approx. $4.0 million per annum**

Health and safety risks

Vehicle Collisions

Of the impacts identified, road safety had the highest monetary impact with an estimated **$2.3 million per annum as a result of road accidents** and fatalities arising from collisions with large feral animals.

Photo credit: ABC Radio National Law Report

Vehicle collisions with feral animals in the past 2 years

Sept 2015 collision with horse, rolled over vehicle	• Injury and loss of vehicle
July 2015 collision with two donkeys	• Injury, time off work
July 2015 collision with a horse	• Injury minor
April 2015 collision with a camel	• Injury and loss of vehicle
Late 2014 collision with a horse	• Fatality driver
August 2014 collision with a camel	• Injury and vehicle damage
2014 collision with a camel - car rolled	• Fatality passenger
2014 collision with a camel - car rolled	• Neck injury, replace vehicle

Types of costs arising from collisions in APY Lands

Human costs

The effects of a collision with a large feral animal go far beyond the simple repair of the vehicle. The sad reality is that it affects the people involved, their families and their community in both the short and long term. The variables are many, from minor injury, temporary disability to permanent disability and in some cases death.

Given the remoteness and size of APY Lands communities, the impact of any individual harmed in such collisions is not only more costly financially but also has a deep psychological impact on the community as a whole.

Costs include the loss of labour from the workplace as well as from the household and community; a reduced quality of life; costs associated with ambulance, hospital care and family needing to travel to be with hospitalised patient. In addition there are the impacts of long term care, legal costs, and in the worst case scenario, coroner/funeral services.

Service delivery

The cost of delivering services to remote regions is high compared to urban communities. Preventative measures to reduce the incidences of feral animal collision not only benefit the community itself but significantly reduces the demand for services such as medical treatment, police, fire and emergency, insurance administration and legal advice.

Additional benefits of feral animal removal

Community health impacts:

- Pollutants in drinking water quality
- Physical danger from camels/ horses/donkeys coming into communities/camping areas
- Fear and stress from large animals invading community public areas
- Spoiling community with faeces and urine

Infrastructure

Significant costs also arise from the need to invest in and maintain infrastructure required to manage the impact of the feral animals in the APY Lands e.g. fences, protective structures.

Repairs to infrastructure damaged by feral animals are particularly costly due to the APY's remote location but more importantly it puts the health of community members at risk when essential systems/services are unable to operate (e.g. air conditioners, bores, taps, tanks, pools, sewerage ponds, water reticulation etc.).

Water

Throughout the APY Lands there are frequent problems with feral animals encroaching on communities in search of water. Consequently community infrastructure, ranging from homeland bores and orchards to community taps, air-conditioning and reticulation are regularly damaged costing communities and service providers thousands of dollars annually.

Most negative impacts are exacerbated in drought conditions. Even if feral animal populations remain static, with climate change temperatures forecast to increase 1–1.2 degrees C and a decline in rainfall of between 2–5 percent, clean water availability will be critical.

Left: Water infrastructure damaged by large feral animals in the APY Lands not only wastes precious clean water but presents a number of health risks

Reducing numbers of large feral herbivores

Camel industry in APY Lands

Although there have been attempts to create a viable camel industry in the APY lands, so far this has not proven successful due to various limiting factors including:

- High transport costs, due largely to the fact that feral camels can only be carried one-high on single-deck trailers in road trains. This doubles or triples the relative transport cost per animal
- A lack of suitable (i.e. multi-species export-accredited) abattoirs and other mustering and holding infrastructure within proximity to high density animals
- Wild harvest cannot provide the consistent supply of live camels needed to enable processors to enter into long-term supply contracts
- OH&S and animal welfare challenges

Natural Resources Alinytjara Wilurara has a long established presence in the APY Lands and is well recognised for having expertise in feral animal management.

Shorebirds

Between the Sand and the Sea

With declining numbers of shorebirds being recorded around Australia, the importance of gathering data that will inform restorative management measures is critical.

Natural Resources Alinytjara Wilurara's added it findings to state and national data this year with the 2016 Shorebird survey undertaken in early December along the Yalata shoreline.

Prior to 2008, knowledge about shorebird populations, their species, visitation frequency and how they used the habitat was virtually unrecorded.

Four species also received dedicated threat assessments, including Hooded Plover (EPBC listed Vulnerable), the Red-cap Plover, Sooty Oystercatcher and the Pied Oystercatcher (state rare).

The team from DEWNR's Natural Resources Centre in Ceduna included Brett Backhouse (AW Ecologist), Codee Spitzkowsky (AW Project Officer), Jamal LeBois (AW Project Officer), Ben McCracken (EP Senior Project Fire Officer) and Andrew Sleep (Authorised Officer West Eyre) and volunteer Andrew Brooks.

Migratory Birds

The populations of many species of migratory shorebird are in decline. The long and dangerous migration route to breeding grounds in northern Siberia each austral winter requires each species to fly many thousands of kilometres non-stop to vital feeding grounds. Many of these are around the Yellow Sea in China where pollution and silting is severely impacting on the bird's ability to feed and rest. For this reason many birds are unable complete their journey.

Non-migratory birds

In addition, species of non-migratory shorebird which reside in Australia are also on the decline, most notably the Hooded Plover. This species tends to prefer high energy beaches, which are often also popular fishing spots. On beaches that have vehicle access, the risk to Hooded Plovers, who breed along the high tide line is significantly increased. In addition, many people are visit these areas with dogs, which can also predate the nest, or kill chicks, or simply scare the birds from feeding locations.

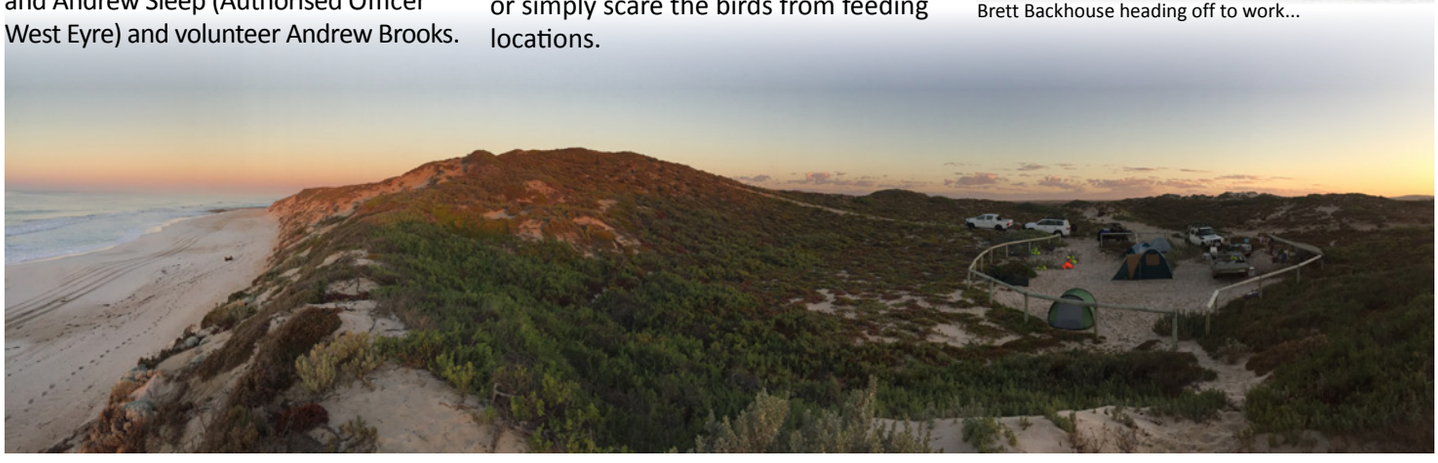
Hooded Plovers are keen and protective parents, and will defend nest or chicks by feigning injury, or swooping predators. Unfortunately, most of these techniques are useless against one of the biggest threats to Hooded Plovers, feral cats and red foxes.

Survey technique

Surveys were undertaken by foot, with the exception of the longest sections of coastline where a Quad vehicle was used.

All transects are walked between known fishing camps, allowing for track access to the beach, and a dedicated start and end point. Most of these are

Brett Backhouse heading off to work...



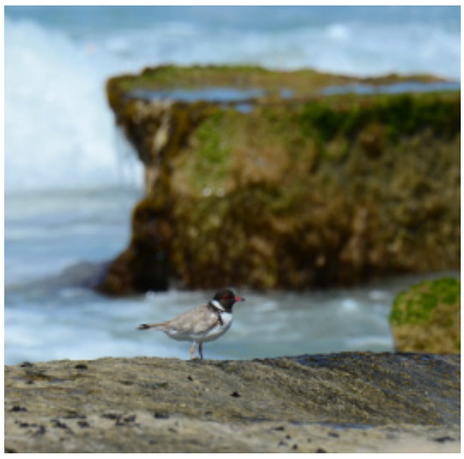
around 5-7 kilometres apart, providing a decent, however achievable walk to be undertaken in the early, cooler part of the day. Observers walk at a steady pace, while surveying the beaches and dunes for species of bird. Once sighted, a birding scope are used to identify bird species, and count numbers. All birds are also checked for leg 'flags' which provides movement data on the migratory species.

Data is collected via Personal Digital Assistant (PDA) devices, which have Cybertracker installed to provide a systematic format for recording data.

Survey Results

Over three days 1130 individual bird species were identified from 22 species of bird along the Yalata coastline during the shorebird transects. An additional 56 birds from 9 species were recorded opportunistically off transect while in the area. Of these 1130, 29 were classed as juveniles, which, due to the lateness of the survey is not unexpected.

The most abundant species was the Red-Cap Plover, with 395 individual recorded, followed by the Red-Neck Stint with 331. Migratory species of note include eight Grey Plovers, two Common Sandpiper, 81 Sanderlings and 17 Ruddy Turnstones. In addition to the 395 Red-Plover, 38 Pied Oystercatcher were noted, and 16 Sooty Oystercatchers were seen. A



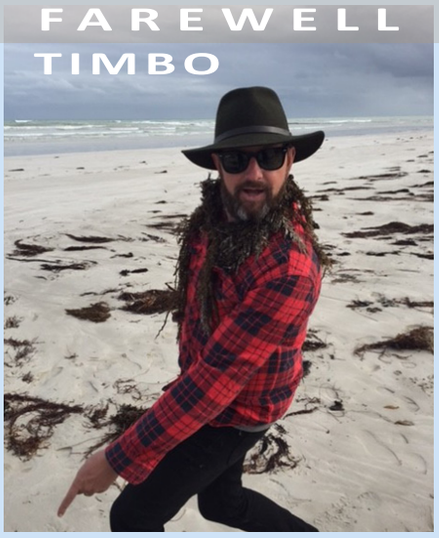
Hooded Plover (Thinornis rubricollis)

Ruddy Turnstones (Arenaria interpres)

total of eight Hooded Plover were also observed Along more southern transects.

A number of threats were recorded, the most abundant being animal tracks. Sixteen tracks were noted within 100m of one of the target species, 12 from Red Fox. Numerous vehicle tracks were also recorded, and litter noted, mainly around the beaches between Hilton camp site to Twin Rocks.

The weary walkers put their feet up at Jaxon camp site at the end of another long day



Timothy Moore

Everyone's cross with Tim! How could he leave us when he had so many irons in the fire ready to be crafted into solid AW successes. The answer is pretty easy. He was offered a position with Greening Australia that he'd have been foolish to pass up.

Yes that's right, Tim is sailing off on a new boat but not without leaving a legacy of "thinking outside the box" ideas that will continue to flow on through the staff left in his wake.

As NR AW's Manager, Strategy, Knowledge and Sustainability, Tim forged many strong relationships across the AW region particularly across the APY Lands and certainly within DEWNR.

With a network of experts and his passion to drive real change, Tim set the ball rolling on many new initiatives. Amongst his many achievements and with the support of his hard working team, a new streamlined reporting and planning system was developed that is proving to be an efficient and effective tool. He established new engagement mechanisms for the APY Pastoral team and its stakeholders to provide consistent information and support progression of improved cattle management strategies.

You left some big boots behind Tim, we will miss your cheery disposition and zany sense of humour.

Marine Debris never looked so good

Yes they're at it again. Those fabulous West Coast Aboriginal artists have once again woven their magic to create a spectacular marine debris sculpture at the Ceduna (*Tjutjuna*) Arts Centre.

Using marine debris collected during Natural Resources Alinytjara Wilurara's 2016 beach debris surveys, the group have fashioned a giant blue swimmer crab sculpture. The driving force behind its creation is the desire to raise awareness about the significant issues that marine debris causes marine life.

Debris was collected by community members from Yalata from various beaches between Chinaman's Hat and the Head of Bight.

Artists from GhostNets inspired and supported the local artists in creating this unique and truly eye-catching piece.

Its size may present some transport issues, but knowing the determination of this group, they will find a way to ensure it is seen as widely as possible and that the message it conveys is carried with it.

Keep an eye on the AW Facebook page... we'll keep you posted on where this fabulous creation will make its first appearance.

Tying up rope fibres

Jaime Newchurch wiring the crab feet

Collette Gray weaving marine debris

Get to know the...

Blue Swimmer Crabs

Portunus armatus

Blue swimmer crabs are powerful swimmers and voracious hunters and scavengers. They are targeted by commercial and recreational fishers.

Blue swimmer crabs (Portunus armatus) can usually be recognised by their flat, disc-shaped hind legs, used as paddles for swimming. They also have nine spikes, called horns, along their carapace, on either side of their eyes.

Along SA's Far West coastline blue swimmer crabs can grow to up to 25 cm wide across the carapace with a claw span of up to 80 cm. They eat small fish and crustaceans, molluscs, worms, and occasionally, algae and seagrass. In turn, they are prey for fish and birds.

They live in estuaries, sheltered bays and offshore waters up to 50m deep. Estuarine crabs tend to move from estuaries into nearby marine waters during winter. Crabs in marine bays spend their entire lives in the bay.

By day, they hide beneath the sand with only their eyes protruding, then launch themselves at prey. At night they become mobile and search for food.

Blue swimmer crabs begin life as tiny larvae, called 'zoea', that drift in bays or along the coast up to 80 kilometres out to sea. They are prey for fish and the death rate is high.

The survivors reach shallow nursery areas by late summer. They settle to the sea or estuary bottom and moult (shed their shell) frequently while rapidly growing. They turn into a more crab-like state called 'megalopae'. By autumn, most are crab-shaped. They grow rapidly until by winter they reach maturity with a carapace of about nine centimetres.

Acknowledgement: Dept. of Fisheries (WA)

Far West Coast Launch Healthy Country Plan

Congratulations Far West Coast Co-management Team

After extensive consultation, and to the delight of all involved, the Far West Coast Healthy Country Plan (HCP) received its final sign off at the Far West Coast Aboriginal Corporation AGM in November.

"This has been an amazing journey from beginning to end... seeing the members of the Yellabinna Conservation Park Board and Nullarbor Plains Advisory Committee grow in confidence and enthusiasm leading to the production of this important Plan" said Saras Kumar, DEWNR's Far West Coast Policy and Planning Officer.

Eighteen months of hard work and lengthy discussions has resulted in a well thought out plan that captured the essence of caring for country as well as the unique and vital connection that Aboriginal people have with the land.

The Healthy Country Plan will ensure the ongoing cultural and environmental protection of the unique Parks of the state's Far West and ensure that the youth of today understand the importance of protecting the landscape and culture for future generations.

APY's new Total Grazing Manager...

Michael Clinch talks about grazing in the Outback

In July this year, veteran stockman Michael Clinch was appointed to the role of Total Grazing Manager in the APY Lands.

Michael has been on bush stations pretty much his whole life. He grew up on a remote Outback station where an Aboriginal mentor taught him to not just look, but to really see what is going on with country.

For Clinch, creating an Outback that's environmentally, as well as economically sustainable has become a guiding passion.

Michael says Outback pastoralists have to learn to 'graze, not erase'. "We must stop the degradation now," he says. To keep the landscape healthy, many of the grasses that livestock feed on need to remain uneaten.

"Locking up our land and leaving it has been proven to not be an option," he says. "The landscape simply needs controlled grazing to re-establish the future of our rangelands."

The solution to restoring the land's health is simple but so many find it hard to implement: match stocking rates with the needs of the land and make decisions using evidence-based science, not wishful thinking.

Clinch says the secret to proper management of stocking rates is simply "being honest with yourself" – knowing when you need to destock and doing it instead of holding on in the hope of rain and the feed it creates, but which often doesn't come. In other words foresight is better than hindsight.

"The Outback, to me, is the cathedral of Australia," Clinch says. "We're desperate to reclaim the quality and value of the Outback, and to achieve that vision we need support. We accept that there's a problem and that we're part of that problem, however we also want to be part of the solution.

As a younger man, Clinch was a champion bull rider on the rodeo circuit. Bull riding also taught him the determination to see his task through to the end. "If you're on the back of a bull and you change your mind you're in trouble."

It's a long road ahead for the APY Lands cattle industry and it seems that Michael has much he can contribute.

The team at NR Alinytjara Wilurara look forward to working with him to help carry the vision of healthy APY Lands cattle country through to reality.

WELCOME TO THE TEAM

Ben Daly

Before joining AW as a Regional Planning Coordinator I worked in diverse roles across government, private, and academic sectors in Australia and overseas.

I grew up in Cairns in far north Queensland and after school studied ecology at the University of Sydney. Here I undertook field research at Ethabuka Station in the Simpson Desert QLD studying lizard ecology.

After university I worked for the Department of Environment and Climate Change in Sydney but soon took up an opportunity to study an M.Sc. in Biology at Oxford University. For this I completed two research projects, one studying invasive Wall lizards (*Podarcis muralis)* in the UK, the other studying personality and predation risk in Great tits, *Parus major.* After the M.Sc I was awarded a scholarship to undertake a PhD and worked with local people in the Kosnipata Valley, Peru studying Bird ecology.

After 5 years in Oxford I worked in Hanoi, Vietnam as an Australian Volunteer for International Development. As a Dept of Nature Conservation staff member, I worked on diverse projects across the social, environmental, and economic interface of sustainable development.

I'm now pleased to be back on home soil and working on NRM in the AW region! I'm particularly happy to be back in the arid zone where I started out in this sector. I hope this background provides a bit of context to my great interest in the diverse social, environmental, and development work we undertake together with local communities and their members in our region – Palya!

Jamal LeBois

I joined Natural Resources Alinytjara Wilurara as a project officer in June this year after working for 18 months with Natural Resources Eyre Peninsula (NR EP) as a trainee in Ceduna. During this time I completed a Certificate 3 in Conservation and Land Management.

I spent the first 10 years of my life living between Yalata Aboriginal Community and the Nullarbor while dad worked as a Ranger for Yalata Land Management. This is where my passion for Land Management started.

My family later moved to Ceduna so I could further my schooling and sports. After completing Year 12 in Ceduna I took up an opportunity to work in the Jacinth Ambrosia mine as a machine operator. After two years I decided it wasn't my thing, so I moved to Adelaide with my girlfriend. While she studied at university, I got back into football and was selected to be on the first season of "The Recruit" Fox8 TV show. It's an Australian Football show where the footballers are selected from around Australia try to win an AFL contract.

Unfortunately I was eliminated from the show in the first episode. Soon after I played a couple of games for Port Adelaide Magpies in the Reserves. Half way through the year I decided to walk away from high-level footy and return home to Ceduna.

A few months later I took up the trainee position with NR EP, and now here I am working for Alinytjara Wilurara in Ceduna where the best coastline in Australia is. I couldn't be any happier joining the AW crew.

BEST WISHES

Yasmin Wolf

After more than 5 years with Natural Resources Alinytjara Wilurara Yasmin Wolf has become an irreplaceable member of our team.

But when motherhood calls we must allow her a brief spell to take care of matters not related to the amazing work she usually undertakes with AW.

Working out of the Ceduna Natural Resources Centre she has developed many strong relationships within the local, as well as remote communities. Without doubt, they were all equally as delighted as us to hear that she is to become a mum.

It's been a big year for Yas... having started in the acting position of Manager, Parks and Co-management last year and then winning the role, she has been a very busy woman.

The role seems to have suited her well because before she knew it she discovered she would be soon taking up the important role of being a mum. Forgot to build that one into her training schedule!

Yasmin will be starting 12 months maternity leave early in the new year but the team wanted to take this opportunity to wish her well and look forward to her return in 2018.

FAREWELL

Matt Ward

After starting with the department in 2006 Matt joined the Alinytjara Wilurara team in 2011 as an Aboriginal Lands Regional Ecologist. Following a period acting in the position of NR AW Regional Manager he was appointed to the role in 2013.

Although we are only now bidding him farewell from our team, Matt actually left us at the end of 2015 to take on another acting role, this time as Executive Director Conservation and Land Management to which he has now been appointed.

The AW team hasn't forgotten you though Matt, nor has the Board.

"Matt's support for, and encouragement of the Board played a significant part in helping us develop our suite of policies, establish our strong governance and gain wide recognition of the Board's high-level capabilities in natural resources management. He was also instrumental in forging partnerships with key stakeholders in the region " said the AW NRM Board's Presiding Member, Parry Agius.

"We appreciate the determination he showed in supporting us in meeting our objectives. We will continue to build on these achievements and wish him well in his future endeavours" he said.

AW NRM Board Presiding Member Parry Agius with Matt in Canberra

Speaking with AW NRM Board member Mima Smart

Above: with Richard King from Correctional Services

Below: at the signing of the Yalata MoU

Below: APY Lands' Warru Recovery Program Team, 2011

Matt with Warru Recovery Program Team winning the National NAIDOC Caring for Country Award in 2011

In his role as Chair of the Nullarbor Advisory Committee, getting together after a long day on country

Now that Matt has plunged into DEWNR's upper echelons, the NR AW team he led for two years would also like to say thanks, as individuals and as a team, for his support and leadership.

We wrote him a little poem to put into words some of the lighter side of his time in the AW region however that is only for viewing at his discretion. Maybe he'll make a song out of it!

Like anyone who has ever worked in the region we know Matt will never forget the amazing people who call it their home nor the incredible experience of working to meet the dynamic challenges posed by this unique area of Australia.

All the best for a fabulous future Matt!

Parry Agius
Presiding Member

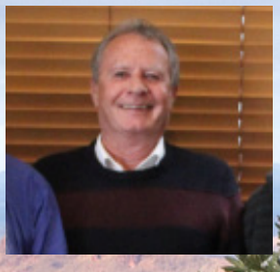
AW NRM Board

Serving the

PEOPLE, COUNTRY, WATER of the Alinytjara Wilurara Region

Debbie Hansen
Board Member, Tjuntjuntjara

Mick Haynes
Board Member, Far West Coast



Kristy Richards
Board Member, ALT

Gary Lewis
Board Member, APY Lands

Peter Miller
Board Member, Far West Coast

Ian Crombie
Board Member, AMYAC

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