

# CLC RANGER PROGRAM REPORT



**CENTRAL  
LAND  
COUNCIL**

SUPPLEMENT TO  
THE CLC ANNUAL REPORT

**2015-16**



CENTRAL LAND COUNCIL

# CONTENTS

<b>Foreword</b> .....	1
<b>Program overview 2015–16</b> .....	2
Program Funding .....	2
Broad support for indigenous ranger programs .....	3
Indigenous ranger work is great value for money .....	3
Where CLC rangers work .....	4
Traditional Owner Ranger Advisory Committees .....	4
<b>Ranger Program activity report</b> .....	5
North Tanami Rangers .....	5
Warlpiri Rangers (Yuendumu, Willowra, Nyirripi) .....	6
Muru-warinyi Ankkul Rangers (Tennant Creek) .....	7
<i>Case study: Rangers manage fire in the Tennant Creek region</i> .....	8
Anmatyerr Rangers (Ti Tree) .....	10
Tjuwanpa Rangers (Ntaria) .....	11
Kaltukatjara Rangers (Docker River) .....	12
Ltyentye Apurte Rangers (Santa Teresa) .....	13
<i>Case study: Bush medicine project</i> .....	14
Anangu Luritjiku Rangers (Papunya) .....	15
Murnkurrumurnkurru Rangers (Daguragu) .....	16
Arltarpilta Inelye Rangers (Atitjere) .....	17
<b>Rangers in action</b> .....	18
Fire work .....	18
Data collection .....	19
Training and employment report .....	21
<b>Acknowledgements</b> .....	25
Glossary .....	25



# FOREWORD



**A**s chair of the CLC I get a lot of feedback from CLC delegates and community leaders about how proud they are of the work our rangers do across the CLC region. We all want more opportunities for our people to work on their land and look after country for future generations.

Rangers always work closely with traditional owners of the land to share knowledge and complete projects that help our communities manage country. In my region, rangers work across the southern Tanami IPA with traditional owners.

This year I was happy to visit the annual ranger camp held at Blue Bush Station and to talk to rangers. It was really good to see all the rangers together getting trained up to do their jobs better.

We need more rangers, and many CLC delegates want to start ranger groups in their country.

I hope we get more funding to keep up with the need for us to properly look after country.

Keep up the good work.

**Francis Kelly**  
CLC Chair

**I** am very pleased to submit the *CLC Ranger Program Report 2015–16* which outlines the work of the CLC, rangers in natural and cultural resource management. This report supplements the *CLC Annual Report 2015–16* as we want to highlight the achievements of remote based Aboriginal people in our region. Last year's ranger report was the first for the Ranger Program, a large part of our land management activities. It contains a brief history of the program.

This year, rangers have once again completed many great projects that help traditional owners manage large areas of land for which they are responsible. Not only have the ranger groups completed on-ground works, they have also undertaken development and training activities, and represented their groups, communities and the CLC at meetings, workshops, and cultural and natural resource management (CNRM) forums. Their presentations are consistently recognised as interesting, informative and the quality of their delivery receives applause.

More than 15 rangers graduated with formal CNRM qualifications this year. Rangers strive to bring scientific and cultural knowledge together to better manage land.

The CLC receives more requests for ranger positions than can be met by available funding. We are endeavouring to not only find ways to expand the program but to ensure existing resources are maintained beyond current funding timeframes.

We are all proud of the CLC Ranger Program and our hard-working rangers.

**David Ross**  
CLC Director

# PROGRAM OVERVIEW 2015–16

## PROGRAM FUNDING

Since 2010 the Ranger Program has operated under a consolidated funding model with relative security. This has enabled individual groups to grow and develop their capacity to deliver natural and cultural resource management outcomes. Funding for salaries and operational costs for the CLC's 11 ranger groups is provided under agreements with both the Australian Government – through the Department of the Prime Minister and Cabinet's (DPMC) Working on Country (WoC) program – and the Indigenous Land Corporation (ILC) – through their Real Jobs Program. The Aboriginals Benefit Account (ABA) also has provided a significant level of funding for one-off operational, capital and infrastructure costs, such as office, accommodation and workshop facilities. Further project funds are sourced according to demand and as opportunities arise. A small amount of revenue is also generated from contracts to provide environmental services – that revenue is reinvested into the program.

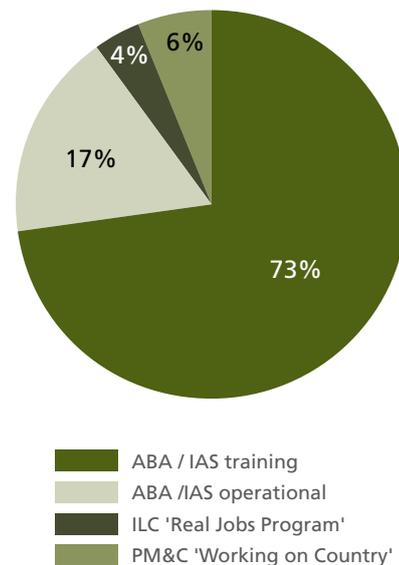
At the end of this reporting period the funding for the Ranger Program was secure until 30 June 2018 under the following arrangements:

- **Ltyentye Apurte, Murnkurrumurnkurru and Arltarpilta Inelye rangers:** A two-year ILC Real Jobs Program (Rangers) agreement that supported 25 full-time equivalents (FTEs)



North Tanami rangers Anthony Rex and Jeffrey Matthews (Junior) relax at the 2016 ranger camp.

CLC RANGER PROGRAM FUNDING 2015–16



concluded 30 June 2015. After review of the Real Jobs Program a contract that reduced available ranger positions from 25 to 18 was offered by ILC until June 2018. Although the ILC cut ranger positions, by October 2015 the CLC had received additional critical operational funding for the three groups also for the period until June 2018. The same grant also provided additional training funds for all 11 ranger groups.

- **Angas Downs Anangu Rangers:** A two-year WoC agreement with DPMC (concluded 30 June 2015) provided ranger and co-ordinator salaries, capital and operational resources and supported three FTEs. A three-year application to the government's Indigenous Advancement Strategy submitted in October 2014 was successful and ensures funding for this group will continue till June 2018; however, this group is currently under review and assessment.

Funding arrangements for the other seven groups remained unchanged:

- **North Tanami, Warlpiri, Muru-warinyi Ankkul, Anmatyerr, Tjuwanpa, Anangu Luritjiku and Kaltukatjara rangers:** A five-year WoC agreement (2013–18) with DPMC provides ranger and ranger co-ordinator salaries, capital, operational and administrative resources to support 51.2 FTE positions across these ranger groups.
- **North Tanami Rangers:** A five-year Caring for our Country (CoC) agreement (2013–18) with DPMC supports the operations of the Northern Tanami Indigenous Protected Area (IPA), including wage support for the ranger co-ordinator and operational funding for some IPA management activities.

## BROAD SUPPORT FOR INDIGENOUS RANGER PROGRAMS

During 2015–16 a number of public forums promoted the value of indigenous rangers to all Australians.

In recognition of the need for the Australian Government to continue to support the nation's most successful indigenous programs, CLC became an alliance member of the Country Needs People campaign. Country Needs People is the voice of more than 25 indigenous and non-indigenous organisations, including regional land councils, Aboriginal corporations and international environment organisation Pew Charitable Trusts. The group seeks to grow and secure indigenous ranger and IPA programs across Australia.

The 2016 federal election campaign was a time of mobilisation for the Country Needs People campaign. In their pre-election commitments, every major political party – except the Liberal–National Coalition – supported the campaign's calls for growth and security of indigenous land and sea management. The Australian Labor Party supported the campaign's first ask by undertaking to double the number of indigenous ranger positions and to extend contracts for a further five years if they won the election. The Greens met the campaign's asks by calling on the government to double funding for indigenous rangers and IPAs, extend contract lengths to 15 years, and set a long-term target of 5,000 indigenous rangers to match environmental management need. Other parties and candidates – including the Nick Xenophon Team, Senator Jacqui Lambie, Andrew Wilkie MP and Senator Glenn Lazarus – supported the campaign's asks.

The Northern Territory was a key area for the campaign because of its strong record in indigenous land and sea management, and also because it is home to the federal Indigenous Affairs Minister, Nigel Scullion. The non-partisan campaign highlighted the value of IPAs and indigenous rangers to key audiences. The campaign no doubt influenced the NT Labor's election policy to provide an additional \$14 million over four years to support the work of indigenous land and sea management upon winning the Northern Territory election.



North Tanami ranger Jerisha Green at the 2016 ranger camp.

A number of activities influenced these results and the CLC was instrumental in many. Peter Donohoe and Benjamin Kenny represented the CLC at Parliament House at the launch of a report into the social and economic benefits of indigenous ranger and IPA programs. Mr Kenny made media appearances and met with politicians, including Leader of the Opposition Bill Shorten. Throughout the year, the CLC, in particular Director David Ross, made frequent public calls for growth and security of indigenous land and sea management programs. The CLC also promoted the success of indigenous ranger and IPA programs by disseminating positive stories through traditional and social media. With the help of these stories, the Country Needs People campaign rallied more than 30,000 members of the public to sign online petitions and send emails to decision makers and election candidates, communicating their support.

Looking ahead, the Country Needs People campaign will work to secure commitments from the Coalition Government to grow and support indigenous land and sea management. The CLC will continue to support the campaign through both independent advocacy and participation in Country Needs People events and media.

## INDIGENOUS RANGER WORK IS GREAT VALUE FOR MONEY

The CLC and its governing council have long recognised the value of its Ranger Program to traditional owners, communities, rangers and their families. Clearly employment and training, as well as management actions on country, are highly valued by our constituents – Aboriginal people living within the CLC region of the Northern Territory. But there are less tangible benefits that flow from the program, and the CLC plans to conduct independent monitoring and evaluation to substantiate and quantify these benefits.

In 2015, DPMC commissioned Social Ventures Australia to conduct Social Return on Investment (SROI) analyses of the Warddeken IPA and four other IPAs in regional and remote Australia. The department sought to understand, measure and value changes brought about by the declaration of these IPAs and their associated ranger programs.

One location chosen was two adjacent IPAs in remote WA – the Birriliburu and Matuwa Kurrara Kurrara IPAs – which were

analysed in a single SROI. Their associated ranger programs were primarily funded through the Working on Country program. Although CLC-managed IPAs and ranger groups were not directly examined in the study, the findings provide third-party validation of the benefits from the similar work undertaken by our groups.

The key findings of the report included:

... the IPAs and associated Indigenous ranger programs have generated significant social, economic, cultural and environmental outcomes ...

The four SROI analyses demonstrated that the social, economic, cultural and environmental value created was more than the investment.

The report proposed that:

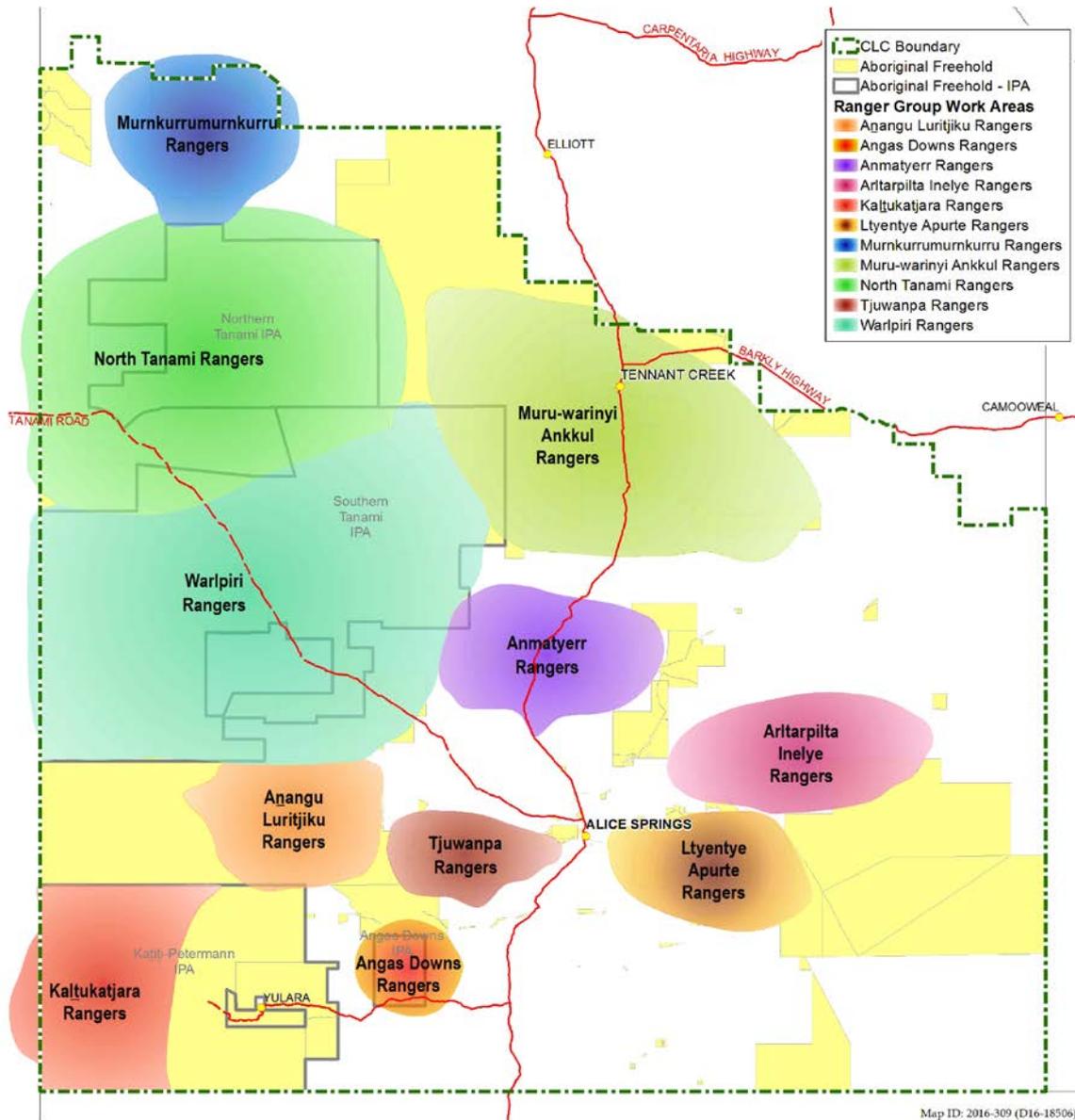
... increased investment in Indigenous land and sea management projects will continue to drive higher rates of social return.

## WHERE CLC RANGERS WORK

CLC rangers work across most of the CLC region – a very large area of the Northern Territory. As the CLC’s resources do not allow it to manage this entire region, traditional owners

have identified priority areas and the projects that best meet their aspirations.

CLC RANGER GROUP WORK AREAS



## TRADITIONAL OWNER RANGER ADVISORY COMMITTEES

All of the CLC’s ranger groups have a Traditional Owner Ranger Advisory Committee (TORAC) which provides strategic advice and planning. TORACs are critical to provide direction and support for rangers and are the link between traditional owners, the community and rangers. TORAC members provide cultural advice to the group and their co-ordinators and assist the CLC in recruiting suitable staff and rangers.

Within IPAs, management committees perform the same function as a TORAC.

The Ranger Program is managed as a separate operational unit within the CLC’s land management section which, in turn, is organised into two regions – north and south – each with a corresponding program co-ordinator. The Ranger Program has a number of remotely based staff which at 30 June included 11 ranger group co-ordinators and 113 rangers on either a full-time, part-time or casual basis. Other support staff are based in Alice Springs, including a ranger trainer, two ranger mentors and two ranger support officers. While the Ranger Program is a separate operational unit, land management and other CLC section staff provide expertise and support.

# RANGER PROGRAM ACTIVITY REPORT

## NORTH TANAMI RANGERS

### ACTIVITY HIGHLIGHTS

North Tanami Rangers worked on a number of projects around Lajamanu and in North Tanami IPA.

Key achievements of 2015–16 included:

#### Biodiversity monitoring and threatened species

- Surveyed several areas for the presence of bilbies. Two rangers and three traditional owners attended the Bilby Festival in Kiwirrkurra, WA, in June 2016 to help inform management strategies for local bilby populations.

#### Water management

- Monitored wetland and water quality at Kamira Waterhole, Milwayi Springs and Emu Rockhole. Mapped potential drought refuges along Hooker Creek .

#### Fire management

- Participated in the Warlu Regional Fire Committee meeting in Lajamanu in October 2015 with other ranger groups and traditional owners. The meeting was hosted by North Tanami Rangers.
- Conducted ground burns over approximately 60 hectares in spinifex plains country.
- Made three major country trips to Karlantijpa North ALT, around Papinya/Kurlpurlunu and Wardalya, where aerial incendiary and ground-based burns were conducted. During the year 1 million hectares were burnt across Northern Tanami.
- Burned, slashed and removed weeds and fuel at remote gravesites and adjacent outstations during July and October 2015.

#### Weed management

- Monitored and controlled Parkinsonia within Hooker Creek IPA Key Management Zone, particularly along the banks of Hooker Creek.

#### Feral animal management

- Assisted Coolibah Crocodile Farm on three horse culls which removed approximately 220 horses from areas surrounding Lajamanu community.
- Maintained the boundary fence which protects Emu Rockhole from feral animals.

#### Cultural heritage management

- Returned with key traditional owners to the recently re-discovered Kurlpurlunu water place to clean it and support ceremonies and cultural knowledge sharing. The site had not been visited for a long time and some ceremonies had not been performed for 70 years.
- Made an important country visit to Wardalya (Spider Lakes), which involved aerial incendiary burning, biodiversity

monitoring, cultural knowledge sharing, and a scientist-supported bird survey which identified over 25,000 birds present at that time. Traditional owners from Lajamanu, Ali Curung and Yuendumu participated.

- Senior women traditional owners, with women ranger support, painted a cultural map of a significant *yarla* or bush potato (*Ipomea costata*) site and other important places.
- Made a cultural sharing trip with senior men to Kamira waterhole where future management actions were discussed and recorded.

#### School-based capacity building

- Delivered a presentation on the work of rangers to a group of teenage school students in Lajamanu.

#### Other highlights

- Supported the IPA co-ordinator to produce a flyer on recent roadworks and the installation of whoa-boys on the Duck Ponds road.
- Published a newsletter, a large photo story book and assisted in producing an IPA performance story photo book.
- Three rangers presented 'Nguru Jungangka Mardanjaku: Maintaining Country in the Northern Tanami' at the NT NRM southern forum in June 2016.



North Tanami rangers Jonathon Dixon and Dion Kelly prepare to burn country under the guidance of their grandmother Molly Tasman.

## WARLPIRI RANGERS (YUENDUMU, WILLOWRA, NYIRRPI)

### ACTIVITY HIGHLIGHTS

Warlpiri Rangers work in the Southern Tanami IPA, which covers 101,580 square kilometres of land. It is extremely difficult for Warlpiri Rangers to effectively manage such a large area and annual planning and prioritisation is critical.

Key achievements of 2015–16 included:

#### Biodiversity monitoring and threatened species

- Completed black-footed rock wallaby surveys at Yarrpilangu and Windajongu. Rangers monitored sites for bilby, mulgara, and the great desert skink across the IPA and found an active bilby population at Sangsters Bore.
- Worked alongside Australian Wildlife Conservancy at Newhaven researching goannas and conducting biodiversity surveys and feral cat control.
- Participated with traditional owners at the Bilby Festival in Kiwirrkurra, WA, in June 2016 to help inform management strategies for local bilby populations.

#### Fire management

- Conducted burns across a number of locations in the Southern Tanami IPA, including protective burns and slashing at a number of outstations. Rangers completed 12 days of aerial incendiary burning.
- Participated in the Warlu Regional Fire Committee meeting with other ranger groups and traditional owners.

#### Weed management

- Conducted more than 100 days of weed control across the Southern Tanami IPA targeting Parkinsonia and prickly pear (both on the Australian Government's Weeds of National Significance list), as well as other weeds such as couch grass, buffel grass, rubber bush and Mexican poppy.

#### Feral animal management

- Controlled and surveyed foxes and cats at several locations.
- Provided environmental services at Twin Bonanza Mine to control feral cats and foxes under a contract with ABM Resources and in collaboration with Desert Wildlife Services.

#### Cultural heritage management

- Assisted families to maintain and protect bush gravesites.
- Supported three country trips on Southern Tanami IPA. The trips included IPA staff, other CLC staff and traditional owners. Cultural knowledge was shared and documented.
- Supported a four-day cultural knowledge field trip in November 2015 with traditional owners and staff of the Northern Australia Indigenous Land and Sea Management Alliance (NAILSMA) to further progress the recording of Warlpiri bird names. Traditional owners shared their knowledge and the Jukurpa associated with birds with rangers, younger people and a NAILSMA representative.

#### School-based capacity building

- Produced a display at Yuendumu's CLC office as part of a career expo. Students and families learned what rangers do and what it is like to be a ranger. The ranger display was voted best at the expo.



Gina and Harold Howard of Blue Bush Station – hosts of the 2016 ranger camp.



## MURU-WARINYI ANKKUL RANGERS (TENNANT CREEK)

### ACTIVITY HIGHLIGHTS

Muru-warinyi Ankkul Rangers work on large areas of Aboriginal land around Tennant Creek as well as in joint-managed NT Parks and, where appropriate, on pastoral and government-owned land.

The group is closely involved in fire management of the Tennant Creek region and works with other stakeholders to install firebreaks that the township of Tennant Creek.

The group has several service contracts in the region, including maintenance of Karlu Karlu/Devils Marbles Conservation Reserve and dust-monitoring of the Tennant Creek township.

Key achievements of 2015–16 included:

#### Biodiversity monitoring and threatened species

- Participated at the Bilby Festival in Kiwirrkurra, WA, in June 2016 to help inform management strategies for local bilby populations.
- Completed biodiversity surveys at Murrarji Station, a black-footed rock wallaby survey at Ngyurramini East, and bilby survey work along the Hanson River corridor.
- Surveyed and monitored water quality and biodiversity (particularly bird life around water on Mission Block) at lagoons and wetlands.

#### Fire management

- Supported aerial incendiary burns on Karlantijpa North ALT with the CLC fire officer and traditional owners, as well as ground burns at Kunjarra and Mission Block.
- Burnt firebreaks along roadways and borders between ALT land and stations, and the town boundaries of Tennant Creek.
- Graded firebreaks and sprayed around Tennant Creek ALT and station boundaries. Firebreaks were negotiated with Bushfires NT as part of wildfire management strategies. Several months of work with the grader has set up a grid of firebreaks that will be maintained chemically for many years at a much reduced cost.
- Responded to Bushfire NT requests to contain wildfires on six occasions. This was less than previous years, largely due to the CLC's aerial-burning and ground-burning work, as well as fuel reduction from unrelated burning by traditional owners independent of the CLC or Bushfires NT.

#### Cultural heritage management

- Graded a track to the Mitty water site and the Bean Tree access road on the Karlantijpa North ALT. The track will facilitate water monitoring at Mitty and cultural visits to the region – a priority women's cultural heritage activity.
- Maintained fencing and conducted cold season burns at Karlu Karlu/Devils Marbles Conservation Reserve.
- Cleared firebreaks and undertook burns to protect culturally significant stands of mulga on Warumungu ALT.

#### Visitor management

- Maintained and cleaned Kunjarra/Devils Pebbles when possible – the site is busy and suffers considerable visitor impact and rubbish.

- Maintained Karlu Karlu/Devils Marbles Conservation Reserve campground during peak tourist season under a contract with Parks and Wildlife Commission of the Northern Territory.



#### Weeds and feral animal management

- Managed fences at Mission Block and mustered and removed stray cattle which had entered from neighbouring stations.
- Managed weeds over 40 days, targeting Parkinsonia and athel pine (both on the Australian Government's Weeds of National Significance list), as well as rubber bush and buffel grass at various sites, including Algoora Swamp, Kalumpurlpa community, Blue Bush Station, Kunjarra/The Pebbles and Juno.

#### School-based capacity building

- Provided about 40 days' support to approximately 100 school students in practical survey, weed control, water monitoring and work placement activities at the school, Kunjarra, Mission Block and Ngyurramini. Rangers supported VET in schools, and a group of school-based Rural Operations trainees attended our annual ranger program camp.

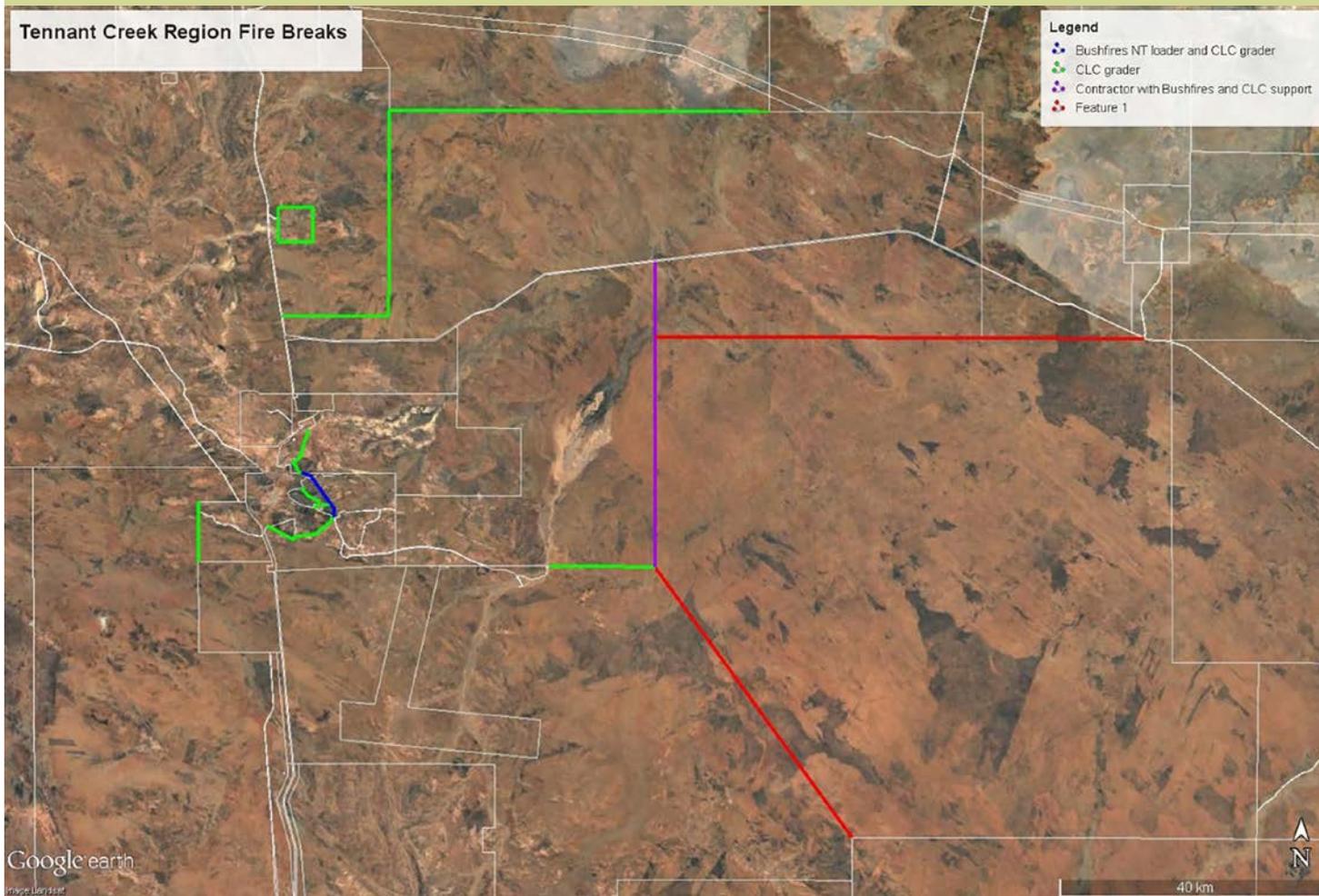
#### Other

- Hosted the annual ranger camp at Blue Bush Station – a huge logistical effort that resulted in a successful event for all ranger groups.



Lisa Rex, Josie Grant and Gladys Brown inspect one of the CLC's all-terrain vehicles at the 2016 ranger camp.

## Case study: Rangers manage fire in the Tennant Creek region



**M**uru-warinyi Ankkul Rangers have a significant role in managing fire and reducing wildfire damage in and around Tennant Creek. Rangers and traditional owners work with NT Fire and Rescue Service (NTFRS), Bushfires NT and the Department of Land Resource Management (DLRM) to support regional fire management. Rangers also work with traditional owners on local land trust areas to reduce hazards, improve biodiversity and carry out cultural burns.

Muru-warinyi Ankkul Rangers maintain key firebreaks with a combination of grading and follow-up chemical treatment: an approach that minimises the cost of firebreak maintenance. Under current plans, all firebreaks associated with Aboriginal freehold land and neighbouring landholder agreements will be graded. The primary threat to firebreak condition in the region is the fast regrowth of woody plants, particularly *Acacia anuera* (mulga) and *Acacia lysifolia* (turpentine bush). Turpentine is of particular concern as adult plants are highly flammable and leave very sharp stakes after fire which can cause expensive tyre damage to work vehicles.

With the timely application of a granular residual herbicide, the period between grading will be extended by up to five years

During this year rangers graded over 170 kilometres of firebreaks, as shown on the map above. Green lines indicate breaks graded solely by the CLC's rangers using CLC resources and machinery:

- firebreaks within NTFRS and Bushfire NT emergency response areas
- the boundary between Mission Block and Phillip Creek Station
- the boundary between Phillip Creek Station and Warumungu ALT
- the boundary between Brunchilly Station and Warumungu ALT
- sections of the boundary between Tennant Creek Station and Warumungu ALT
- the boundary between Kraut Downs and Warumungu ALT
- the boundary between Tennant Creek Station and Warti-yangu ALT
- Juno Road

- south town firebreak
- strategic breaks between the Lone Star Track and Peko Mine (wholly within Warumungu ALT).

In collaboration with Bushfires NT and DLRM, the CLC contributed to the grading of approximately a further 173 kilometres in the following areas (blue, red and purple lines on the map):

- the boundary between Warumungu ALT and vacant Crown land NTP 4469 (the CLC contributed fuel costs, ranger time and traditional owner payments)
- the boundary between vacant Crown land NTP 4469, Warumungu ALT and Tennant Creek Station (the CLC contributed ranger time and traditional owner payments)
- the boundary between Warumungu ALT, vacant Crown land NTP 4469 and Epenarra Station (the CLC contributed time and traditional owner payments)
- strategic town firebreak between Mary Ann Dam and Peko Mine (the CLC contributed ranger time and grader).

Strategic firebreaks now surround the south-eastern outskirts of Tennant Creek, protecting the town from wildfires approaching from that direction.

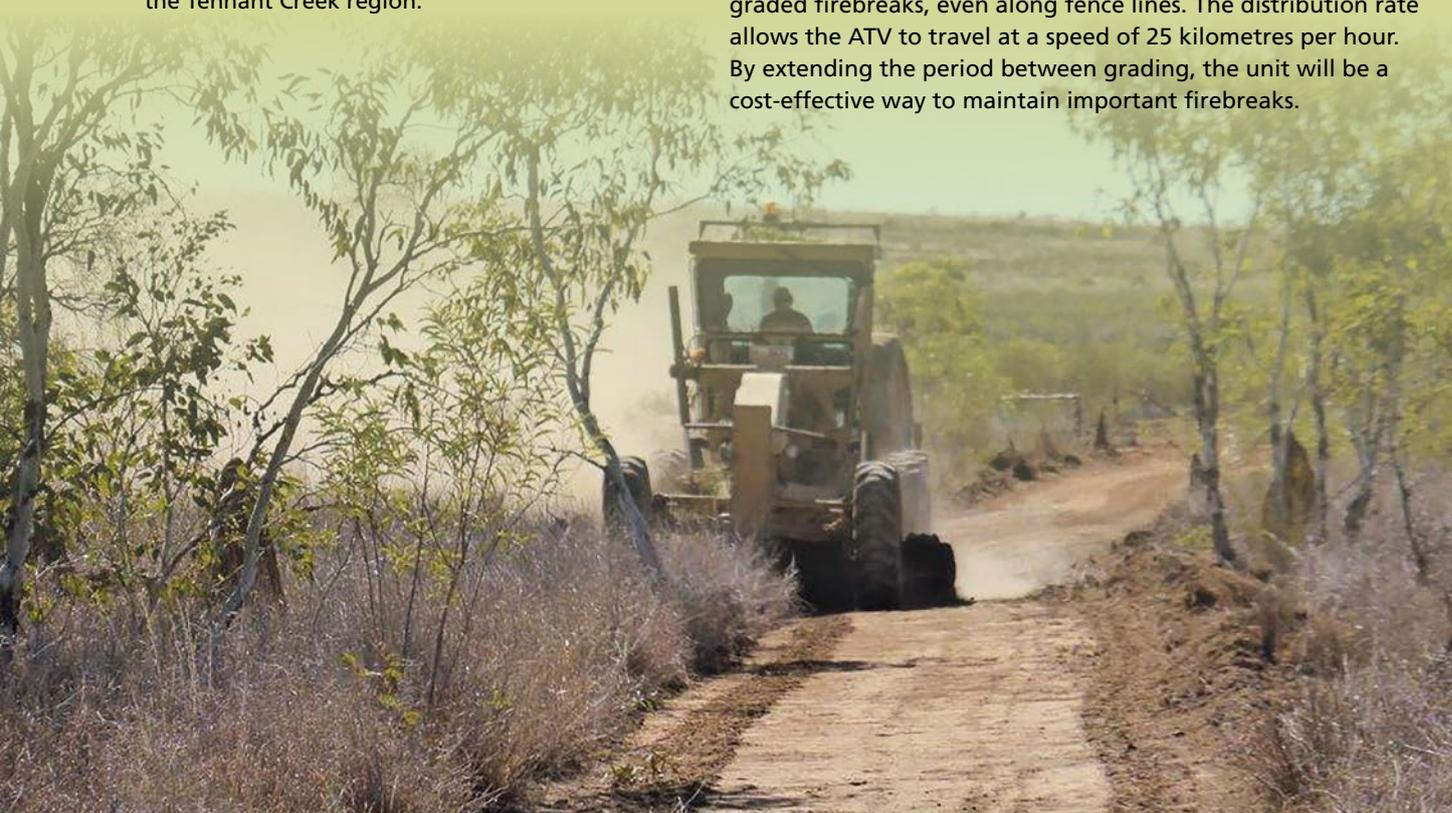
A ranger grades a firebreak in the Tennant Creek region.

## A PROTOTYPE GRANULAR RESIDUAL HERBICIDE SPREADER

Last year we reported on the development of a prototype herbicide spreader that will be used along firebreaks to prevent regrowth. Ranger Carl Mafong (pictured right) tested the first prototype on the Tennant Creek south town firebreak in September 2015.

This year the ranger group took the design a step further. They fitted the variable speed spreader to a custom-made towbar, designed to fit on the back of ATV units. The rangers wired the spreader into the ATV, enabling the ATV operator to engage or disengage the spreader from the driver's seat. The system uses the same power system rangers installed on the 100 litre quick-spray units issued with ATVs. Both units are designed for quick release and have common one-way electrical terminals to prevent cross-wiring.

The spreader unit spreads the exact quantity of granular herbicide (approximately 6 grammes per square metre over a linear width of approximately 8 metres) for a single pass along graded firebreaks, even along fence lines. The distribution rate allows the ATV to travel at a speed of 25 kilometres per hour. By extending the period between grading, the unit will be a cost-effective way to maintain important firebreaks.



## ANMATYERR RANGERS (TI TREE)

### ACTIVITY HIGHLIGHTS

Anmatyerr Rangers work predominantly across Ahakeye ALT.

Key achievements of 2015–16 included:

#### Biodiversity monitoring and threatened species

- Completed two surveys of black-footed rock wallaby.
- Monitored population health of the endangered *Typhonium* lily.

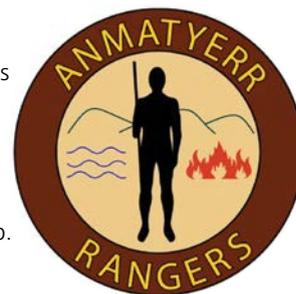
#### Weed management

- Controlled and removed weeds, particularly athel pine and Parkinsonia (both on the Australian Government's Weeds of National Significance list).

#### Cultural heritage management

- Assisted traditional owners to visit country and share knowledge on trips to sites in the broader areas of Coniston, Ngarnka, Mulga Bore, Arremerl, Mer Mpetyan and Anmanapwentye. On all trips, site assessment and site management were discussed and planned as needed.
- Maintained fences which protect four sites from feral animals, including an important waterhole. Fences maintain cultural significance, water health and environmental integrity, and ensure visitor safety and amenity.
- Made trips to country following the Honey Ant and Ahakeye storylines. Stories were recorded and knowledge passed on during the trips.
- Visited sites on Alkwert ALT with Arltarpilta Inelye Rangers to share knowledge and plan future site management projects.

- Facilitated with traditional owners and community members cultural knowledge sharing and documentation related to the threatened bush pumpkin (*anjulkinha – Ipomoea polpha ssp. latzii*).



#### School-based capacity building

- Made two visits to Ti Tree school's middle and upper primary students. Also visited the four other Anmatyerr schools in the region and presented the different types of work rangers do, highlighted employment pathways and engaged students in looking after country.

#### Professional development and group capacity building

- Desert Knowledge Australia and the CLC Ranger Program continued their project to help rangers build their intercultural leadership skills.
- Worked with a soil conservation expert to prioritise and plan remediation works at key sites. Rangers worked alongside Ltyentye Apurte Rangers to build their capacity in this area.

#### Fire

- Undertook fuel reduction burns and asset protection works at a main outstation on Ahakeye ALT.



Information sharing between ranger groups: Anmatyerr rangers presented at the 2016 ranger camp about their experiences.

## TJUWANPA RANGERS (NTARIA)

### ACTIVITY HIGHLIGHTS

Tjuwanpa Rangers are based at Ntaria (Hermannsburg) and work on surrounding ALTs. West MacDonnell and Finke Gorge national parks are close by and rangers often conduct work in these parks and provide support under joint management processes.

Key achievements of 2015–16 included:

#### Biodiversity monitoring and threatened species

- Surveyed Slater's skink and the marsupial mole in possible habitat areas. Visual signs of Slater's skink were recorded at three sites and four sites showed prominent visual signs of the marsupial mole. At one site, thought to be no longer inhabited by Slater's skink because of horse activity, evidence of the skink was found after extensive searching.
- Undertook freshwater surveys with CSIRO and NT and SA government scientists in the West MacDonnell Ranges in March 2016. This was part of the Lake Eyre Basin Rivers Assessment program.

#### Fire management

- Conducted seven fire management activities resulting in managed burns of 135 hectares of country.

#### Soil conservation

- Travelled to Ti Tree to work alongside Anmatyerr Rangers and soil conservation experts to learn more about soil conservation and erosion. Rangers' new knowledge will inform assessment and planning work across the Tjuwanpa area. Three rangers travelled to Santa Teresa to work with Ltyentye Apurte Rangers on soil erosion survey and monitoring methods.

#### Weed management

- Managed 2 hectares of athel pine, 3.5 hectares of Mexican poppy, 1.25 hectares of prickly pear, 1 hectare of buffel grass and 2 hectares of ruby dock, totalling 167 days of ranger effort.

#### Feral animal management

- Fabricated and installed steel 'spiders' to prevent feral animal access to Palm Paddock Spring and 4 Mile Spring.
- Maintained fencing at a number of sites, including Gosse Bluff, Palm Paddock and Kaporilja Spring.

#### Cultural heritage management

- Held five intergenerational planning and cultural knowledge trips, one on each of the five Land Trusts the ranger team works across.
- Worked with Achilpa Valley traditional owners to record sites and plan visitor access to the area. A fence line was constructed along a boundary at Achilpa Valley to protect cultural sites.
- Maintained the Namatjira House yard and gravesites at Kaporilya Springs.

#### School-based capacity building

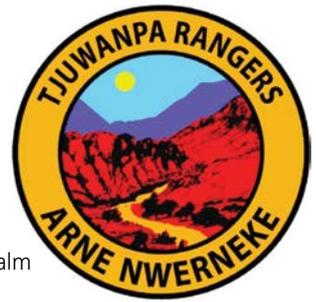
- Gave logistical support to the ANZAC horse ride and assisted with preparation for the event held near Ntaria.

#### 10-year anniversary

- Held a community open day to celebrate the 10-year anniversary of Tjuwanpa Rangers.

#### Fee-for-service

- Completed a weed management (survey and control) contract for Parks and Wildlife Commission of the Northern Territory in Finke Gorge National Park.
- Progressed a contract to remove athel pine from Areyonga. The contract is a Red Centre Biodiversity project.



Tjuwanpa Rangers celebrated their 10th anniversary in 2016.

## KALTUKATJARA RANGERS (DOCKER RIVER)

### ACTIVITY HIGHLIGHTS

Kaltukatjara Rangers work across the Petermann ALT and implement actions that arise from the IPA planning process associated with the Kaṯiṯi–Petermann IPA.

Key achievements of 2015–16 included:

#### Biodiversity monitoring and threatened species

- Undertook two presence/absence surveys for the black-footed rock wallaby. An Anangu Jobs participant was involved in one survey.
- Surveyed for great desert skink and mulgara at Petalu.

#### Fire management

- Assisted and attended the regional Waru Regional Fire Committee meeting and presented on rangers' fire work.
- Undertook five fire management activities resulting in the burning of approximately 4,758 hectares.
- Completed fuel reduction at three sites adjacent to Docker River community which will protect sites from wildfire.
- Made a fire management trip to the north-eastern region of the Kaṯiṯi–Petermann ALT with Anangu Luritjiku Rangers.

#### Weed management

- Monitored and controlled Mossman River grass, couch grass and buffel grass at seven sites. These sites are either important cultural sites, waterholes or alternative water points for feral animals. An Anangu Jobs participant was involved in one of the control works.

#### Feral animal management

- Repaired and maintained water infrastructure at alternative water points for camels near the Docker River community.

#### Water management

- Cleaned one waterhole and removed dead horses, and monitored and maintained five other sites for weeds, dead animals and rubbish.

- Monitored water at 12 sites. Four sites were monitored in conjunction with NT Government specialists who shared their knowledge and reviewed rangers' water-monitoring practices.

#### Cultural heritage management

- Maintained fencing, monitored rock art integrity and controlled weeds to reduce fire risk at three important cultural sites.
- Made a trip to Tjunti where rangers worked with traditional owners and CLC staff to record information on the effect of fire on bush foods. The information gathered will become part of a book on the subject

#### School-based capacity building

- Made two visits to Nyangatjatjara College and Docker River primary school to talk about the work of rangers and to raise awareness of land management work in the area.

#### Visitor management

- Installed five 'No Entry' signs at five sites across the Kaṯiṯi–Petermann IPA.
- Maintained campgrounds at Tjunti and Docker River throughout the year.



Kaltukatjara rangers receive their copies of CLC's 2015 *Ranger Report* at the 2016 ranger camp at Blue Bush Station.



Kaltukatjara rangers monitor water quality.

## LYENTYE APURTE RANGERS (SANTA TERESA)

### ACTIVITY HIGHLIGHTS

Ltyentye Apurte Rangers work mainly on the Ltyentye Apurte ALT surrounding Santa Teresa Santa Teresa (Lyentye Apurte) community, about 80 kilometres south of Alice Springs.

Key achievements of 2015–16 included:

#### Soil conservation

- Planned and constructed erosion control banks – work included ongoing monitoring at five sites in the Tooka Plain management zone to determine effectiveness of the control banks. Maintenance work was carried out on established banks.
- Completed access road maintenance as follows:
  - road graded from Snow Bore to Phillipson Bore (~20 kilometres)
  - road graded from Santa Teresa community to Phillipson Bore (~10 kilometres)
  - road graded from Phillipson Bore to Yam Bore (~10 kilometres)
  - four whoa-boys installed on tracks in the Phillipson Bore area.
- Hosted Tjuwanpa, Arltarpilta Inelye and Anmatyerr rangers to pass on knowledge of erosion remediation, monitoring and skid steer use, and build those groups' capacity in soil conservation. One Ltyentye Apurte ranger spent a week at Tennant Creek and provided support and training in the operation of the CLC grader.

#### Biodiversity monitoring and threatened species

- Monitored and maintained a fence that protects Slater's skink habitat.
- Completed pastoral monitoring at seven established sites on Loves Creek and Numery stations.

#### Water management

- Monitored water quality at two sites; the trips included school students.
- Maintained fencing, removed cattle carcasses and de-fouled Salt Springs.

#### Weed management

- Completed two weed surveys on Santa Teresa ALT.
- Completed weed control for Parkinsonia at Santa Teresa community and Phillipson Bore, and completed bulrush control at Hayes Springs.

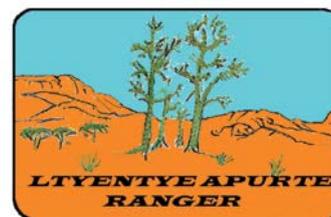
#### Fire management

- Completed fire hazard reduction works (slashing, cleaning up) at Yam Bore.
- Sprayed buffel grass at Ulerrpwe outstation as part of hazard reduction work.

#### Feral animal management

- Maintained muster/trap yards, gates, bore and fencing at Yam Bore in preparation for horse mustering.

- Repaired fences and gates at Phillipson Bore and outstation where feral horses have caused damage to taps and water pipes around houses.



- Held a meeting with the CLC's land management and community development staff to discuss reduction of feral horse numbers across the Land Trust. A subsequent horse survey across the southern end of the land trust counted 300 horses.

#### Cultural heritage management

- Made two cultural trips involving 21 traditional owners (elders and young people) to the Ross River local area. The trips focused on bush medicine harvest and preparation. One trip was primarily for elders from the aged care centre.
- Made two cultural trips with traditional owners, rangers and 25 'at risk' youth. Traditional owners and other seniors focused on bush medicine harvesting and preparation, traditional tool-making, bush tucker harvesting and preparation, and cultural wellbeing and awareness. Rangers also shared their knowledge of land management.
- Delivered logistical support, cultural and environmental awareness, and mentoring activities as part of a joint community horse trail ride with Atyenhenge Atherre Aboriginal Corporation.

#### School-based capacity building

- Delivered a classroom presentation on soil conservation at Santa Teresa school. Five visits to country were made with students from the school.
- Hosted Santa Teresa students at the ranger yard to provide an understanding of workplace safety.

#### Visitor management

- Installed two ALT signs at Uramana outstation to help manage inappropriate visitation.

#### Fee-for-service

- Completed four fire-management planning and eight fire-control activities. Also completed fencing maintenance and fire hazard reduction at Mount Undoolya outstation under a fee-for-service contract from traditional owners, which was facilitated by the community development unit.

## Case study: Bush medicine project

In response to the concern of Eastern Arrernte women from a number of communities about how bush medicines were being harvested, the CLC hosted a bush medicine workshop in 2013. Arrernte and Alyawarr traditional owners from eight communities east of Alice Springs with knowledge and interest in the use of bush medicines attended, including the CLC's Ltyentye Apurte and Arltarpilta Inelye rangers.

At the workshop bush medicine use and harvesting was discussed, harvesting areas were mapped, and harvesting protocols to promote good practice in the region were developed. In addition, participants identified priority actions to implement in their own community or region – traditional owners from both the Plenty River and Ltyentye Apurte regions identified country trips to harvest and produce medicines and the production of a book on local knowledge and use of bush medicines as priorities.

Starting in 2014, Arltarpilta Inelye Rangers organised regular bush medicine trips with traditional owners from three main communities in the region: Atitjere, Engawala and Bonya. On each trip, traditional owners collected bush medicines, mapped harvesting areas, shared harvesting practices for individual species and made bush medicines with community members of all ages. Over the past two years these trips have grown and now include assessments of over-harvested areas of bush medicine, distribution of bush medicine through local health clinics, and education of nurses about the application of these medicines.

In 2016 *Bush Medicines of the Plenty Region* was launched: more than 50 people from the three communities attended the launch at Atitjere. The book was compiled by rangers and includes information on 13 medicinal species collected during the last three years. The book is available to community members from schools, health clinics, child care centres and women's centres in Atitjere, Engawala and Bonya.



Old style but new methods.



Riley Williams teaches young people about bush medicine.



Intergenerational learning at the workshops in Bonya.



## ANANGU LURITJIKU RANGERS (PAPUNYA)

### ACTIVITY HIGHLIGHTS

Anangu Luritjiku Rangers are based at Papunya and work across the eastern half of Haasts Bluff ALT. Rangers work to minimise the impact of horses, cattle and camels and introduced plant species at a number of sites of biological and conservation significance. They work alongside community members from Haasts Bluff, Mount Liebig and Papunya.

Key achievements of 2015–16 included:

#### Biodiversity monitoring and threatened species

- Worked with the CLC and DLRM scientists to survey and protect the *Environment Protection and Biodiversity Act*-listed princess parrot, the endangered rock rat, Slater's skink and locally endangered quondong trees.

#### Water management

- Monitored water quality at Ilpili Springs and Ulamparru dam.
- Rehabilitated Ilpili Springs after severe degradation by camels. Rangers worked with a scientist to install an alternative water point and panel fences to tempt camels away from the springs.
- Located, mapped, cleaned and assessed a series of water places with traditional owners on a country patrol west of Mount Liebig; two swamps, one spring, and four rockholes were located and traditional owners indicated there are still more to be found.

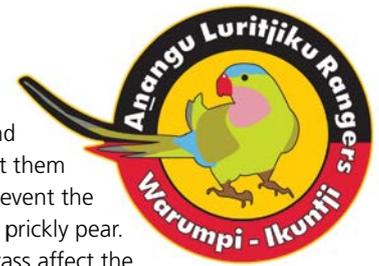
#### Fire management

- Conducted, with the CLC fire officer, community planning consultations on priority fire projects. Ground burns to protect endangered quondong trees and endangered rock rat habitat were undertaken.
- Protected vulnerable vegetation and rock art sites with burns in the Cleland Hills and West Mereenie areas. Burning was combined with weed removal and spraying.

#### Weed management

- Managed weeds across the region targeting buffel grass, Mossman River grass and rubber bush – also prickly pear which is on the Australian Government's Weeds of

National Significance list. Important zones for weed management are water and cultural/art sites to protect them from wildfire and prevent the spread of new weeds, like prickly pear. Rubber bush and buffel grass affect the greatest land area.



#### Feral animal management

- Supported horse, cattle and camel management on the eastern half of Haasts Bluff ALT in conjunction with traditional owners and contractors. Management included aerial culls in steep ranges, trapping for selling in plains areas, and monitoring by sensor cameras and surveys. A horse-handling course in June 2016 increased traditional owners' knowledge of animal husbandry and animal welfare during removal of animals. Rangers also monitored and maintained water and fencing infrastructure.

#### Cultural heritage management

- Mapped and cleaned rockholes in the Ehrenberg Ranges as part of a cross-regional Honey Ant storyline project. Cultural knowledge of traditional owners was recorded as part of these trips.
- Cleaned debris and weeds from Warumpi rockhole. Monitored water quality and undertook protective weed and fire management with traditional owners at special water sites at Ilpili and Muruntji.

#### School-based capacity building

- Presented to Ntaria secondary school students and teachers on the feral animal management work of rangers in the Ulamparru area. Ntaria VET students have a keen interest in horses and horse management, and management of domestic and feral horses is a common issue for the region. Rangers took students and their teachers on a tour of Aturu outstation where a community horse course is planned.



Anangu Luritjiku rangers take a tea break at the ranger camp.

# MURNKURRUMURNKURRU RANGERS (DAGURAGU)

## ACTIVITY HIGHLIGHTS

Murnkurrumurnkurru Rangers are based in Daguragu in the north-west of the CLC region and work across Daguragu ALT and nearby land trust areas.

Key achievements of 2015–16 included:

### Biodiversity monitoring and threatened species

- Monitored water quality, checked feral animal exclusion fencing and removed weeds from around several important springs.

### Weed and feral animal management

- Worked approximately 100 days controlling Parkinsonia and neem, hyptis, bellyache bush and caltrop. A significant result was the removal of large areas of neem from Kalkarindji and Daguragu communities which will prevent spread along adjacent rivers.
- Monitored and repaired fencing to exclude cattle and donkeys from three large mud springs, and worked with a local pastoralist to mitigate the impact of large animals.

### Cultural heritage management

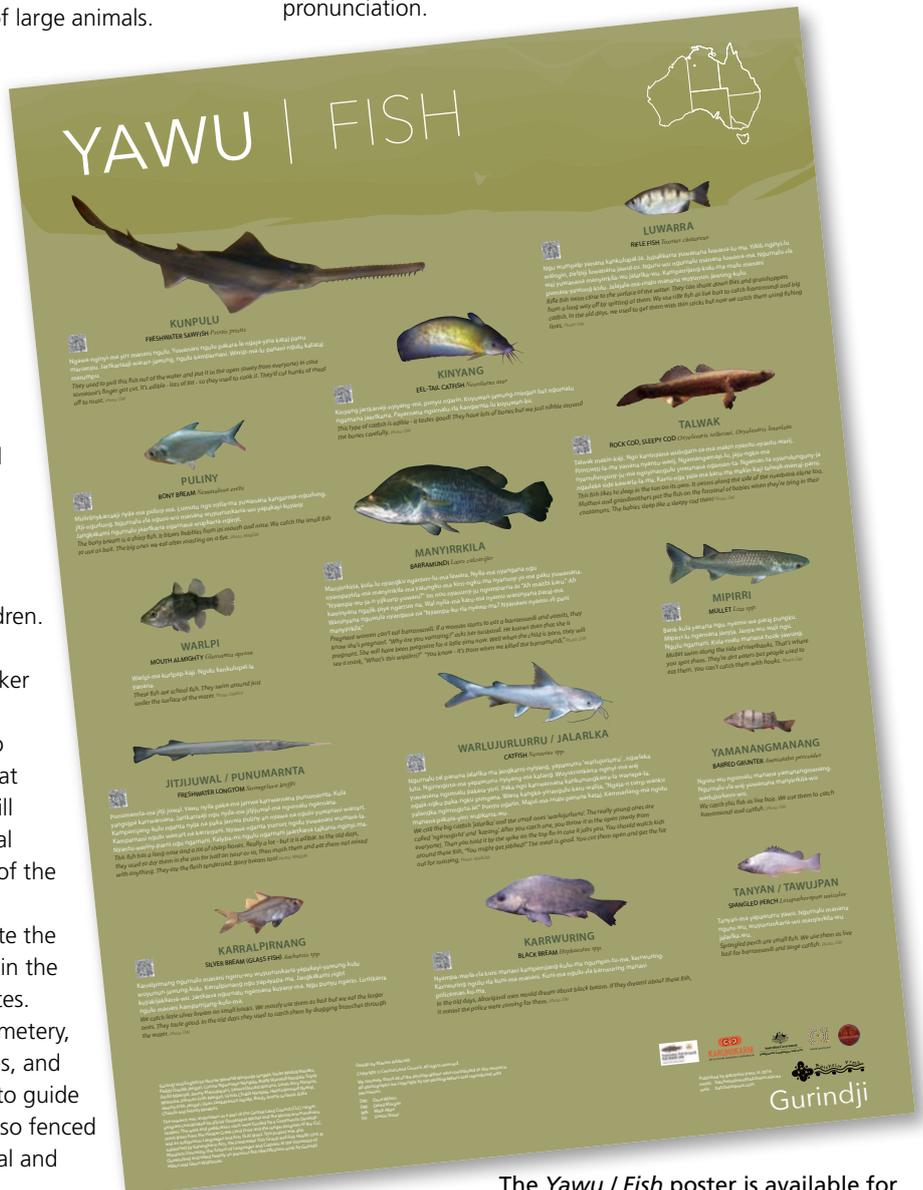
- Commenced cultural site assessments at Burtawurta, Seal Yards, Neave Gorge and Mud Springs. A large swordfish rock art site was recorded at Neave Gorge.
- Took senior traditional owners and arts centre staff to Mudburra/Top Springs to collect wood for carving *kawarla* (coolamons). Rangers learned to make *kawarla* under instruction from senior traditional owners.
- Worked with a University of Queensland linguist to record Gurindji traditional owners' knowledge of fish. The information gathered was published as the *Yawu / Fish* poster; rangers also presented the knowledge to school children. The project was part-funded through a community development project of Hooker Creek ALT.
- Assisted the Gurindji corporation plan to construct a 10 kilometre walking trail that follows the route of the historic Wave Hill Walk-Off. Rangers also provided logistical support to the 50th anniversary festival of the Walk-Off to be held late in 2016.
- Supported traditional owners to complete the recording and documentation of graves in the Kalkarindji cemetery and several bush sites. Rangers repaired and maintained the cemetery, installed metal crosses and name plaques, and contributed to the production of a sign to guide people to loved ones' graves. Rangers also fenced some graves to protect them from animal and vehicle damage.

### Fire management

- Supported traditional owner and ranger participation in large-scale aerial incendiary fire management on Karlantjipa North ALT. Although not in their land trust area, some key traditional owners have responsibilities in this work and rangers gained experience and knowledge of both fire management and country.
- Supported a series of site and firebreak clearances with traditional owners and implemented ground-based burns around Daguragu ALT.

### School-based capacity building

- Developed learning resources and conducted cultural workshops using knowledge gained in the production of the *Gurindji Yawu / Fish* poster. Students learned to identify local and important fish and also learned Gurindji spelling and pronunciation.



The *Yawu / Fish* poster is available for purchase from Batchelor Press.

## ARLTARPILTA INELYE RANGERS (ATITJERE)

### ACTIVITY HIGHLIGHTS

Arltarpilta Inelye Rangers are based at Atitjere (Harts Range) community on the Plenty Highway and regularly work on Aboriginal-owned Huckitta Station.

Key achievements of 2015–16 included:

#### Visitor management

- Developed key points for directional tourist signs installed on the Dulcie Range National Park access road that passes through Huckitta Station. Rangers and traditional owners also developed map images to present to the Huckitta Station board and manager for consideration for inclusion.
- Installed a visitor book at the entrance to Huckitta Station to monitor tourist activity in the Dulcie Ranges National Park and Atnweale Community Living Area.

#### Weed management

- Met with the Huckitta Station manager to discuss ranger projects and weed management strategies, and formulated a plan to present to the Huckitta board of directors.
- Completed a weed survey and weed control for Parkinsonia in the northern area of Huckitta Station.

#### Cultural heritage management

- Supported the bush medicine project by assisting four traditional owners from Bonya make four day-trips during which eight bush medicine plants were identified and recorded. Rangers video-recorded cultural information and produced a draft bush medicine photo book.
- Undertook planning for an indigenous ecological knowledge (IEK) trip with senior traditional owners in the Bonya area of Jervis Station in preparation for an on-country intergenerational IEK sharing trip next year.
- Constructed and installed gravesite/yard infrastructure for Atitjere and Mount Eaglebeak outstation cemeteries.
- Maintained and upgraded fences and infrastructure that protects Amapete, Ilthe-Irlperrkngawe and Ataperrepperre cultural sites.
- Located an old Bloomfield family gravesite close to the turn-off to Indiana Station after several days of searching; plans will see a fence at the site. A cemetery fence is also planned for Eaglebeak outstation.
- Consulted with traditional owners to develop a site protection strategy for a women's sacred site on the former Atula Station where valuable rock art is threatened by feral horses and cattle. The strategy includes assisting eight senior women to share stories on site with younger women and the installation of a protective fence.
- Undertook weed control and fire hazard reduction at Old Huckitta homestead on Atnweale Community Living Area.
- Completed a country visit and site assessment for traditional owners to reconnect with Amperewatterke cultural site on Ambalindum Station.
- Undertook cultural site protection planning trips with traditional owners to a number of sites. After concerns that old or sacred objects were being removed by tourists at Old Huckitta homestead, rangers installed sensor cameras on site.

- Designed and constructed safety fencing at the old Whistleduck mine. Conducted assessments for protection of two old mica mine sites on Mount Riddock Station and the old Ranberane homestead and mine.
- Installed approximately 2 kilometres of exclusion fencing to protect Anyemperrke cultural site from feral animals.

#### School-based capacity building

- Planned junior ranger program country visits with the Atitjere school for 2015–16.

#### Professional development and group capacity building

- Improved both the internal and external spaces of the CLC regional office to better accommodate rangers.
- Studied fire management planning and burn notification processes, and reduced fuel load by slashing and clearing at the Spotted Tiger campground.



Keith Bloomfield, Robin Bloomfield and Darren Petrick protect Arrwaperre Sacred Site from cattle (east of Dulcie Ranges).



Arltarpilta Inelye rangers spray cactus at Huckitta Station near the Plenty River.

# RANGERS IN ACTION

## FIRE WORK

In 2016 rangers were involved with fire management in the far north and south-west of the CLC region. Highlights were the development of a carbon abatement project in Karlantjpa North ALT, the first aerial incendiary burns in Daguragu ALT and Kaṭiṭi–Petermann IPA, and the compilation of a fire management strategy for Kaṭiṭi–Petermann IPA.

Burning in the north of the CLC region has recently taken large steps forward with an increase of resources and improved local relationships. With support from neighbouring pastoralists, Murnkurrumurnkurru Rangers conducted on-ground boundary burns on Daguragu ALT followed by aerial burns in the early dry season. This year's work broke the cycle of large, uncontrolled bushfires in the ALT that have often affected neighbouring pastoralists and Judburra National Park.

Murnkurrumurnkurru and Muru-warinyi Ankkul rangers provided fire management expertise to traditional owners of Karlantjpa North ALT. The northern part of the ALT is now subject to carbon abatement burning which creates a funding stream. On-ground and aerial burning in the early dry season generate carbon credits which can be sold under the Carbon Farming Initiative. This work in the north represents an increased presence in the region that will have real economic and environmental benefits.

In support of the expanded aerial burning program, the CLC has engaged consultants to deliver nationally accredited training in 'Work Safely Around Aircraft and Operate Aerial Incendiary



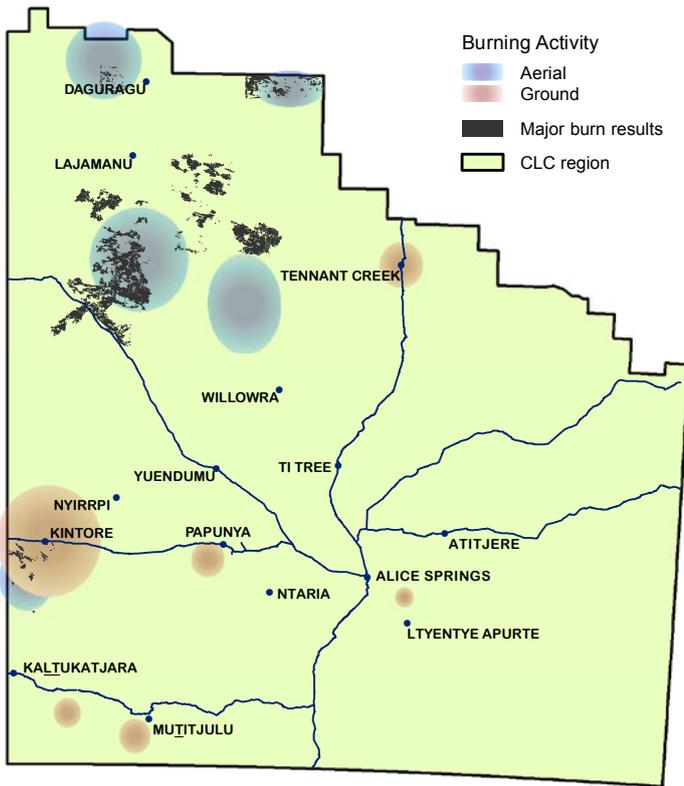
An aerial burn in spinifex country near Tjukurla in the cross-border region of the Northern Territory, South Australia and Western Australia.

Equipment from an Aircraft'. It is delivered to rangers who have shown an interest in fire management and have a long-term commitment to the Ranger Program. During 2016, the course was conducted in Alice Springs in collaboration with Ngaanyatjarra Land and Culture and Kanyirninpa Jukurrpa Rangers. Both these organisations are in the early days of aerial incendiary programs, and the increased responsibility that comes with training has created camaraderie between desert rangers within and beyond the CLC region. These rangers not only operate the equipment – they become leaders in fire and aircraft safety for their senior people and in fire planning and operations.



Mary Gibson burns country in the cross-border region of the Northern Territory, South Australia and Western Australia near Tjukurla.

CLC FIRE MANAGEMENT ACTIVITY 2015–16



In light of high rainfall in the south-west region, Kalkukatjara Rangers began breaking up fuel loads on Katiiti–Petermann IPA. Alongside the on-ground work, CLC staff consulted with families to develop a fire management strategy for the IPA. The strategy brings together the recommendations of traditional owners, conservationists and fire managers and will guide rangers’ and IPA work until 2021.

To complement the fire work in the south-west, CLC fire staff (funded by the Commonwealth Biodiversity Fund project ‘Extending Traditional and Contemporary Fire Management Across Central Australia’) have been leading regular fire management work in Kintore. For a number of years this remote community has requested its own ranger group; the one-week-per-month Waru (fire) program has given people a chance to demonstrate their capacity for governance, planning and on-ground work. So far, they have protected outstations, extended fire management to more remote parts of the region and helped prevent large summer bushfires.

The CLC is part of a region-wide group involved with developing a carbon abatement methodology for desert regions (those with less than 600 millimetres annual rainfall). While an approved methodology will take years to develop, scientists, Aboriginal land managers and funding bodies are coming together to quantify financial and other opportunities presented by carbon abatement on Aboriginal land.

**DATA COLLECTION**

Land management organisations across Australia face many challenges in managing the land resource information that they collect. The CLC contributes to a National Ecosystem Data Resources Working Group which reviews ecosystem science data infrastructure and resources. The CLC also co-ordinates the Indigenous Desert Alliance (IDA) data working group. Key resources shared with the IDA data working group include the CLC’s CyberTracker database and manuals, and the ranger workplan and reporting tool.

CLC rangers collect data on weeds, feral animals, threatened species and critical habitat in Central Australia. They record a range of information such as the number or density of species, relevant biological information about a species, information on habitat quality and the types of management activities undertaken to manage threats. The data is used to develop more accurate management plans and monitor and evaluate the Ranger Program. Rangers continually learn ways to improve the quality of data they collect, as well as management of their data.

Data is mostly collected in CyberTracker, digital data collection software loaded to rangers’ tablets. CyberTracker is a free program developed in Africa and has been used by the CLC’s rangers for more than 10 years. The program integrates the ability to make your own apps, include your own icons to represent words, manage data collected and make basic maps. Free development of the program keeps it available to not-for-profit groups around the world but also means updates are slow

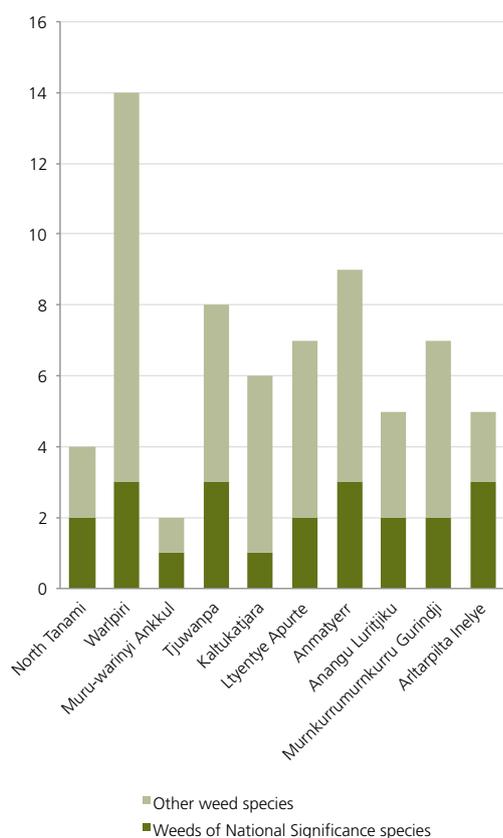
to develop and significant areas of the program are now out of date. A further difficulty for the CLC is that CyberTracker is designed to be used by one group and the CLC has 11 ranger groups. The CLC is exploring alternatives for data collection by ranger groups.

As well as CyberTracker additional software has enhanced data collection: rangers’ tablets now include apps for threatened species monitoring (black-footed rock wallaby, great desert skink, Slater’s skink, bilby, princess parrot, Sandover lily), feral

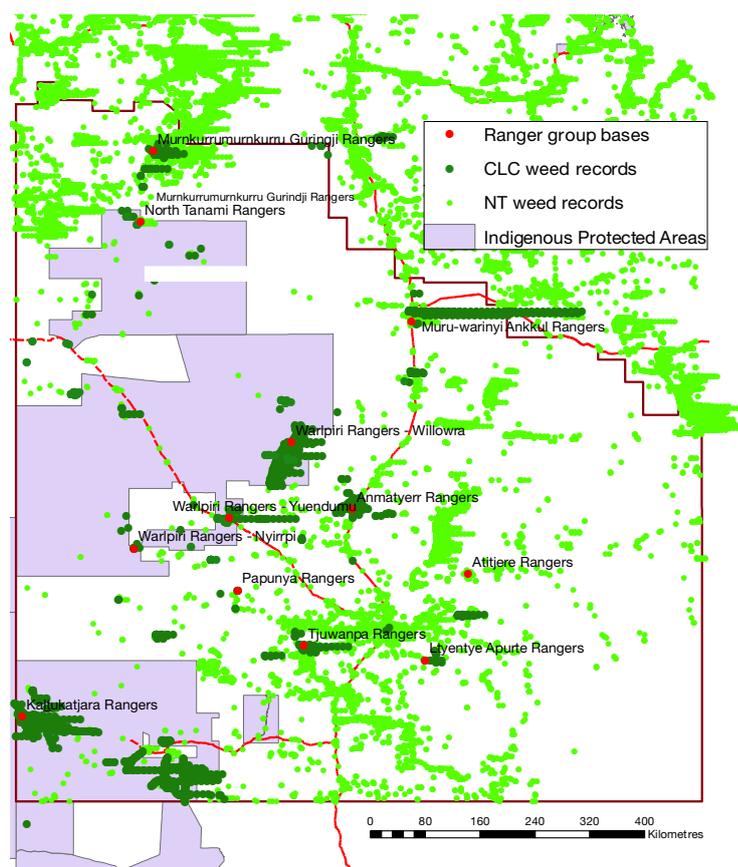
What is the wetland type?		Type of control	
Claypan		<input type="checkbox"/>	Foliar Spray
Gnamma		<input type="checkbox"/>	Basal Bark
Rockhole		<input type="checkbox"/>	Cut Stump
Playa / Salt Lake		<input type="checkbox"/>	Whipper Snipper
Freshwater Lake		<input type="checkbox"/>	Chainsaw
Mound Spring		<input type="checkbox"/>	Digging
Leakage/Seepage		<input type="checkbox"/>	Hand Pull
Spring		<input type="checkbox"/>	Burn weeds

Data collection software used by rangers in the field.

**NUMBER OF WEED SPECIES RECORDED IN EACH RANGER GROUP REGION OVER THE LAST EIGHT YEARS**



**WEEDS RECORDED ACROSS THE CLC REGION COLLECTED BY THE CLC AND HELD BY THE NT GOVERNMENT**



animal monitoring and camera-trapping activities. A site assessment and planning tool to support management planning activities by ranger groups was also developed and is being trialled by ranger groups. Tablets are also installed with Avenza PDF Maps app, apps for plant and animal identification, the Living Archive of Aboriginal languages, and video and photo editing apps.

CyberTracker and Avenza PDF Maps software manuals are distributed to ranger groups. The CLC has also developed a manual and training materials for a 'scavenger hunt' digital navigation and mapping activity.

A significant achievement this year was the compilation of a weed dataset. The CLC has collected more than 3,000 records of 25 weed species over the last eight years, increasing the recorded distribution of a number of species. Twenty-nine regional weed maps are now available for the CLC region (see map above). Weeds on the Australian Government's Weeds of National Significance list are a priority for control by rangers. At least 460 records identified weed control implemented by ranger groups, and in a number of regions new weed species have been recorded which are not identified in the NT Government's weed dataset. This data is important for the development of weed management plans.

Collection of fauna data is progressing and will be completed in 2016–17. A draft assessment of bilby records from ranger trackplot surveys across the CLC region was presented at the Bilby Festival in Kiwirrkurra. Further review of the trackplot methodology is planned with the support of the Bilby Recovery

Team. Data from black-footed rock-wallaby surveys have been compiled and will help determine priority survey and monitoring locations. Work has begun on the development of a water-site monitoring and management dataset and will continue into 2016–17.

Each CLC ranger group can now view and collect spatial information on their tablets. At the 2016 ranger camp, rangers received digital navigation training using Avenza PDF Maps software. As part of the training, a scavenger hunt with checkpoints was conducted – some checkpoints were loaded onto the tablet by rangers, others had to be found and checked. At each checkpoint rangers were introduced to a new aspect of the software.

## AWARDS

Two CLC rangers received awards in recognition of their achievements:

- Charles Lechleitner was a finalist in the 2016 NT Training Awards in the Aboriginal and Torres Strait Islander Student of the Year category.
- Josephine Grant was awarded the Minister's Award for Leadership in Protected Areas Management at the NT Ranger Awards 2016 in June and was a winner of the Women on Country Award in the Working on Country Photography competition. Josephine was also awarded Runner Up – Aboriginal and Torres Strait Islander Student of the Year at the NT Training Awards in August 2015.

## EMPLOYMENT OUTCOMES AND RANGER RETENTION

At 30 June 2016 there were 79 indigenous rangers on a full-time (8), part-time (58) or casual basis (13) within the 11 ranger groups.

Over the seven-year period of consolidated funding (2010–16) a total of 595 Aboriginal people have been employed as CLC rangers either in permanent positions (part-time and full-time) or under short-term casual contracts. The current age bracket for rangers extends from 20 to 67 years, reflecting a wide range of knowledge and skills. A comparison of ranger employment data across the seven years of the program shows a decrease in numbers of rangers employed in permanent positions from 88 in 2015 to 66 in 2016, a 25% decline on the previous period. However, a more detailed analysis reveals that given the program lost seven FTE positions because of changes in funding – which represents a 10% reduction of the overall positions available – the FTE achieved with this smaller group of rangers is actually 4% higher than in 2015. This means, on average, each ranger committed to a longer working week, moving towards full-time employment.

Over the first five years of the consolidated program the proportion of female rangers remained fairly constant; however, 2014–15 saw a significant improvement: from 23.7% up to 29.2% with 33 women employed as rangers at 30 June 2015. This improvement reflects the impact of a number of key women rangers in the program who are seen as role models, and an increased effort to attract young women during the recruitment process. During this period the same level of female engagement was maintained even though the overall number of positions was reduced. This year also saw the first female ranger program support officer employed. The ranger rose through the ranks from ranger to senior ranger to her current position and is aspiring to become our first indigenous female ranger group co-ordinator in the near future.

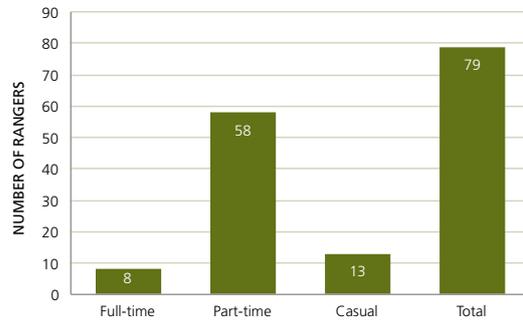
The CLC continues to promote a pathway for rangers to progress – experience and progression is gained through certificate level study in conservation and land management – to more senior positions. There are opportunities to progress from entry level ranger positions to senior ranger roles and on to program support officer and ranger group co-ordinator.

This financial year saw the employment of our third indigenous co-ordinator who progressed from a support officer role. These three were joined by a fourth indigenous co-ordinator in Ti Tree who leads Anmatyerr Rangers.

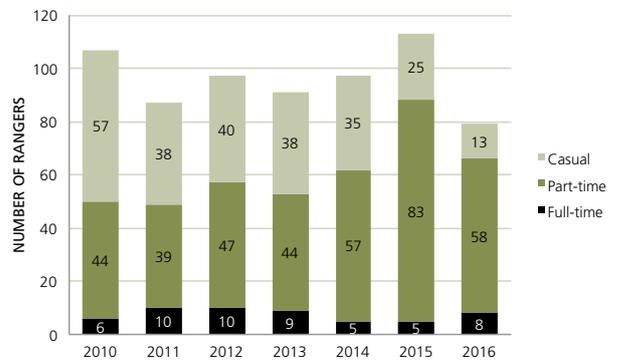
## RANGER RECRUITMENT AND INDUCTION

A recruitment round was undertaken for permanent part-time positions in six ranger groups in the first half of this period. Support was provided by ranger mentors, group co-ordinators and other program staff in providing pre-employment information sessions, assisting with applications and preparation for interviews. The services of community development program providers were also sought to assist in the recruitment process. Group co-ordinators and senior traditional owners participated on interview panels along with experienced senior rangers when appropriate.

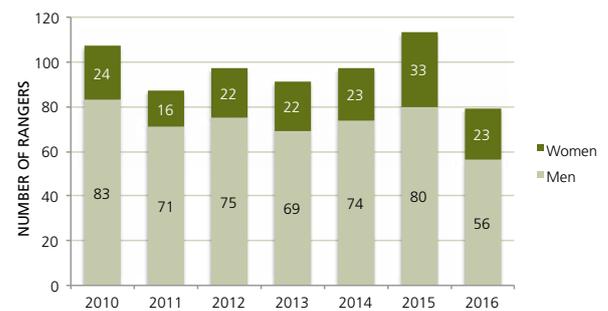
RANGER EMPLOYMENT SNAPSHOT AT 30 JUNE 2016



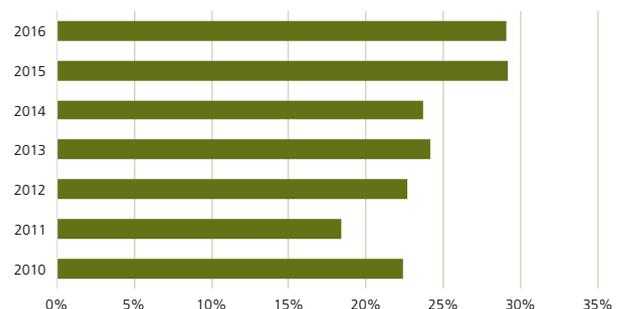
RANGER EMPLOYMENT TYPE 2010–16



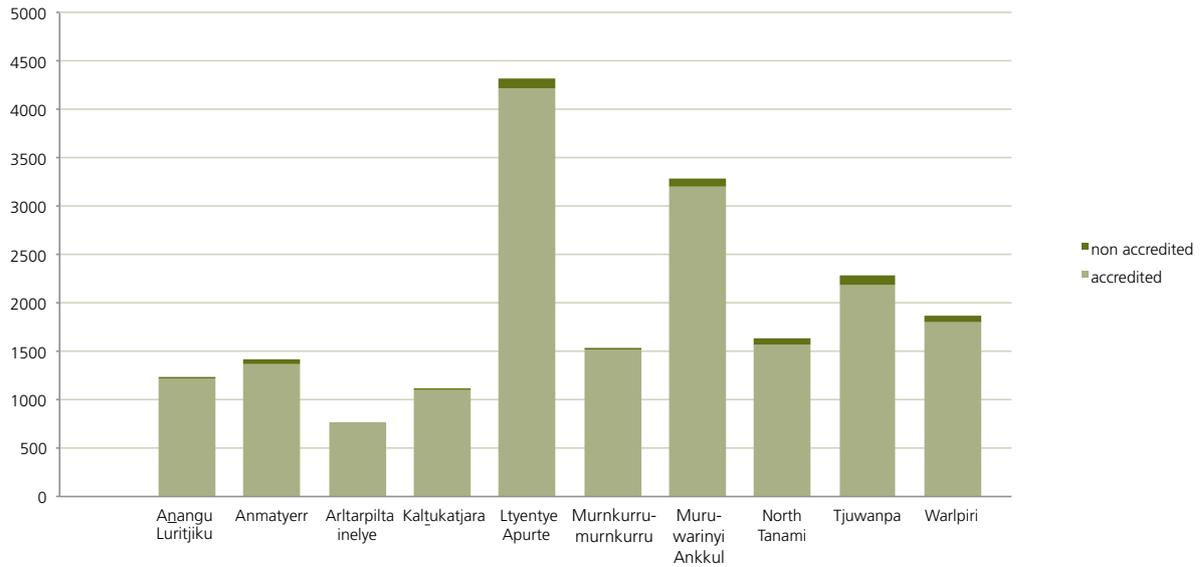
MALE AND FEMALE RANGERS 2010–16



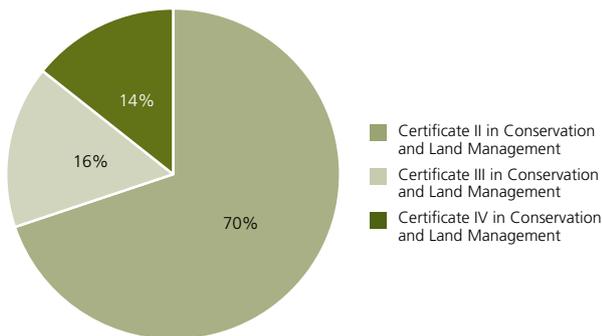
PERCENTAGE OF WOMEN RANGERS AT JUNE 2016



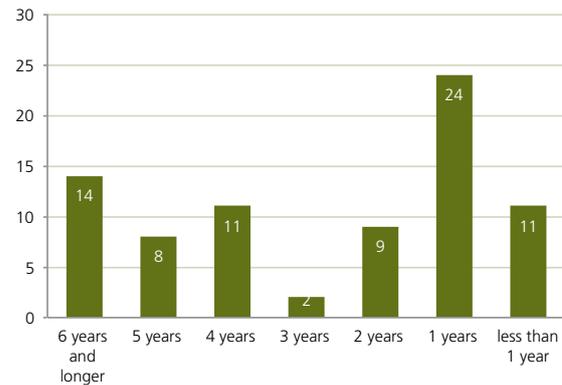
### TRAINING HOURS BY RANGER GROUP 2015–16



### RANGER ACCREDITED TRAINING (BY CERTIFICATE LEVEL) 2015–16



### RANGER RETENTION IN YEARS AT 30 JUNE 2016



An indication of growing interest in ranger employment was the 88 applicants for recruitment to six groups; of these applicants 35 were interviewed, and 18 new rangers were appointed – seven of the 18 new rangers are women.

New rangers completed a comprehensive induction program over two days covering ranger roles and responsibilities, organisational and program structure, workplace policies and procedures, mentoring support and team-building activities.

### QUALITY TARGETED TRAINING AND PROFESSIONAL DEVELOPMENT

In its seventh year led by a dedicated ranger trainer, the Ranger Program continued to achieve significant results in building foundation competencies and career progression through quality professional development and targeted training. Development of basic work-readiness skills is the focus of training for new recruits (e.g. first aid, four-wheel-drive, ATV operations, workplace policies and procedures). For more established rangers with core competency in work health and safety (WH&S), more diverse training is provided to address skills gaps, career aspirations and specialist skills (e.g. chainsaw operation, advanced welding, heavy machinery operations and aerial incendiary procedure).

Significant outcomes of the training effort included:

- Sixty separate training events across the program.
- Delivery of 19,504 hours of training in accredited units of competency in nationally recognised qualifications, and delivery of 540 hours of non-accredited training.
- Based on nominal hours, 97% of training events were in units of competency from nationally accredited training packages.
- 63 rangers enrolled in nationally accredited conservation and land management (CLM) training comprised of 44 enrolments in Certificate II (70%), 10 enrolments in Certificate III (16%) and nine enrolments in Certificate IV (14%).
- 2,060 nominal hours of accredited training were delivered in working safely with chemicals, with a further 2,442 nominal hours dedicated to WH&S (see accompanying charts).
- Eight rangers completed Certificate II CLM and six rangers graduated in Certificate III CLM. The Certificate III CLM qualification is required by rangers taking leadership roles or seeking a ranger program support officer role. Two rangers graduated in Certificate IV which is essential for co-ordinator positions.
- Delivery of 1,630 hours of applied literacy and administration training in group and one-on-one sessions.

Qualification/course/ occupational licence	No. of rangers undertaking course 2015–16	No. of rangers completing course 2015–16
Certificate II in Conservation and Land Management	44	8
Certificate III in Conservation and Land Management	10	6
Certificate IV in Conservation and Land Management	9	2
Smart Train/Chemical Certificate	6	5

## RANGER WORKPLACE HEALTH AND SAFETY COMPLIANCE

Ranger awareness and compliance with WH&S requirements continue to be important to group and individual training. Significant WH&S training achievements in this period included:

- Quad-bike/ATV accredited training undertaken by 16 rangers in response to the high WH&S risk of these vehicles.
- Delivery of two accredited training modules in ‘Prepare and Apply Chemicals’ and ‘Transport, Handle and Store Chemicals’ enabling 12 rangers to obtain ‘Chemical Use Accreditation’ by SMARTtrain, an occupational licence ensuring rangers can supervise others in the safe use of herbicides for weed management.
- A qualification upgrade and refresher course for 27 rangers in new chainsaw operations.
- Delivery of two accredited training modules – ‘Work Safely Around Aircraft’ and ‘Operate Aerial Ignition Equipment in an Aircraft’ – to seven rangers which will improve aerial incendiary capacity across the program.
- Delivery of ‘Firefighting Level 1’ to two rangers and four fire management staff at Tennant Creek.
- Delivery of ‘Suppress Wildfire’ to two rangers and two fire management staff.

## WORKPLACE SKILLS AND KNOWLEDGE

Accredited training is an important part of developing the skills and knowledge of rangers to perform land management work safely and effectively; however, due to time constraints and its prescribed focus, accredited training cannot always address the ‘employability skills’ required by rangers to grow and succeed in the workplace. Employability skills can include administrative, communication, logistics, safety and organisation skills. In recognition of a need in this area the Ranger Program is implementing a strategy that supports rangers to develop such skills, and has received funding to dedicate more mentors and resources for individual rangers to achieve this end.

The Ranger Program has developed partnerships with BIITE learning centres in Yuendumu, Lajamanu, Nyirripi and Willowra for rangers in these areas to receive learning support and develop IT skills.



Knot tying was one of many practical training sessions at the annual ranger camp.



Rangers went on a scavenger hunt during the ranger camp at Blue Bush Station to familiarise themselves with new navigation software.

## TENTH CENTRAL AUSTRALIAN INDIGENOUS COMMUNITY RANGER CAMP

The CLC’s tenth annual ranger camp was held at Blue Bush Station over three days in May 2016. More than 80 participants attended from 10 CLC ranger groups (68), Parks and Wildlife Commission of the Northern Territory (3), Julalikari Rangers (4) and VET students from Tennant Creek high school (9). The annual camp is an important feature of the program and provides a platform for networking, sharing information and relationship building. Highlights of this year’s camp included:

- An address from the CLC chair underlining the importance of ranger work in assisting traditional owners to look after country.
- Delivery of 11 training workshops by five providers over two days, including water monitoring, project planning, ATV use and media skills.

- Team-building activities, including an Amazing Race event and a healthy camp cook off.
- A third ranger forum provided rangers' perspectives on program development and operational issues.
- A graduation ceremony for 16 rangers from eight groups who completed Certificate II or III in CLM through BIITE.

## SCHOOL-BASED CAPACITY BUILDING

The Ranger Program provides an ever-increasing number of role models for students at community schools. Classroom and on-country interactions with rangers contribute to student learning while providing visible employment pathways and motivation to stay in school longer. During 2015–16, 10 ranger groups engaged with schools, junior ranger programs, traditional owners, parents and other interest groups within their communities to promote the values of ranger employment. These occasions provided an opportunity for intergenerational knowledge sharing by senior traditional owners and for work experience students to learn skills from the rangers.

## RANGER MENTORING SUPPORT

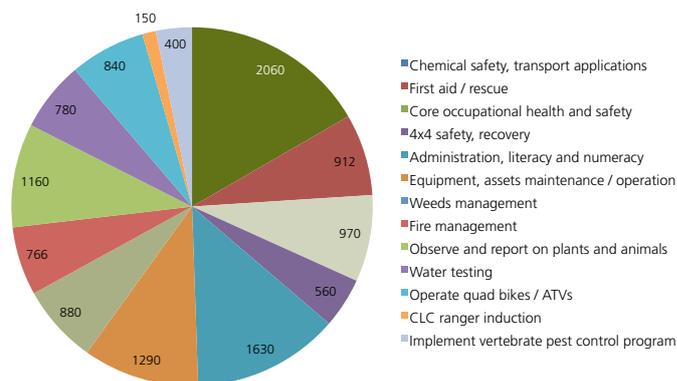
A significant proportion of rangers have few, if any, experiences of ongoing employment. The same applies to most members of their families. Mentor support is critical to meeting workplace expectations and addressing the external circumstances that may affect ranger performance and retention. Trainee rangers enter the CLC's Ranger Program with varying levels of experience, confidence and capability – the program ensures mentors respond to individual trainees in flexible and adaptable ways.

The high demand for ranger mentors places considerable strain on the limited time and resources of the one male and one female ranger mentor employed to support 11 ranger groups. Each mentor is assigned nominally to the north or south ranger sub-programs, but otherwise respond collectively to demand or gender-specific issues, as appropriate, across the whole region.

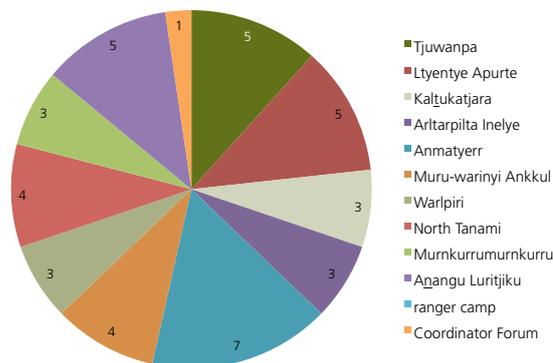
A total of 3,200 mentoring engagements (see graph below) were completed and over 90 mentoring visits conducted (see

pie chart) in this period, with an average of nine mentor visits made per group. A number of these visits were timed to allow mentors to assist with training delivery, ranger recruitment or supervision of a group in a co-ordinator's absence. A success for this year was the delivery of a ranger induction at a regional centre rather than Alice Springs. New rangers were at ease and comfortable at the induction and responded well to training delivered on country and in context.

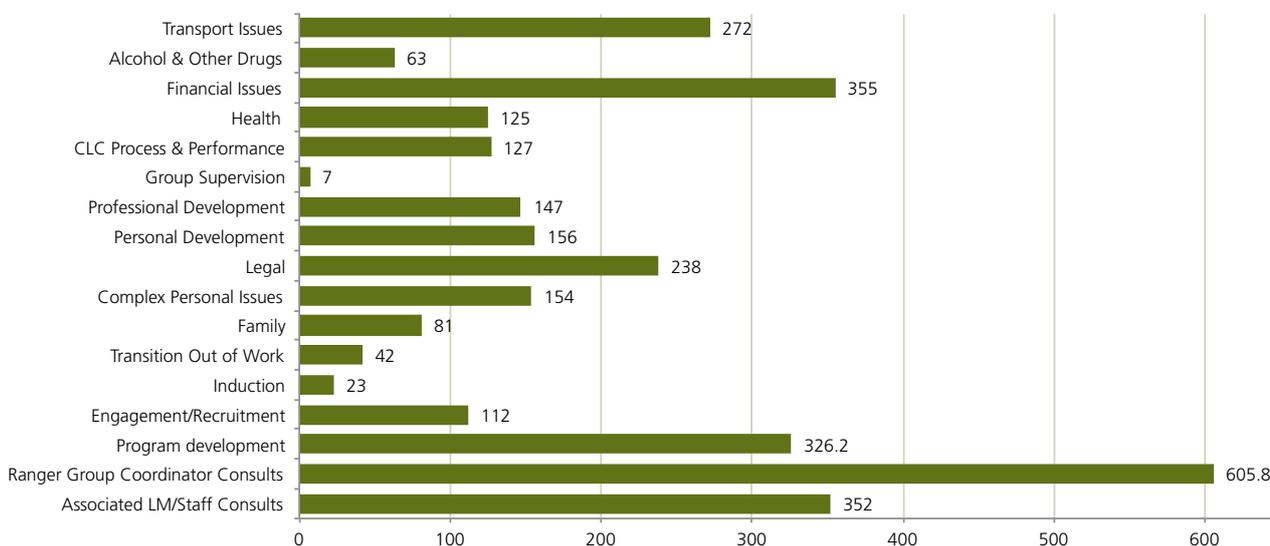
CLC RANGER TRAINING HOURS DELIVERED (BY SKILL SET) 2015–16



RANGER MENTOR ACTIVITY – NUMBER OF VISITS BY RANGER GROUP 2015–16



RANGER MENTOR ACTIVITY – NUMBER OF ENGAGEMENTS BY TYPE 2015–16



## ACKNOWLEDGEMENTS

The CLC acknowledges the major funding bodies of the Ranger Program: the Australian Government's Department of Prime Minister and Cabinet and the Indigenous Land Corporation. Other funders and supporters include NT Natural Resource Management, NT Department of Business, PEW Charitable Trusts, Batchelor Institute of Indigenous Tertiary Education, Charles Darwin University and Central Desert Training.



## GLOSSARY

ABA	Aboriginals Benefit Account
ALT	Aboriginal Land Trust
ATV	all-terrain vehicle
BIITE	Batchelor Institute of Indigenous Tertiary Education
CLC	Central Land Council
CLM	conservation and land management
CoC	Caring for our Country
DLRM	Department of Land Resource Management
DPMC	Department of Prime Minister and Cabinet
FTE	full-time equivalent
IEK	indigenous ecological knowledge
ILC	Indigenous Land Corporation
IPA	Indigenous Protected Area
NAILSMA	Northern Australia Indigenous Land and Sea Management Alliance
NRM	natural resource management
NTFRS	Northern Territory Fire and Rescue Service
SROI	social return on investment
TORAC	Traditional Owner Ranger Advisory Committee
whoa-boys	low profile, trafficable earth banks that intercept runoff flowing down roads and tracks and carry it to a stable outlet
WoC	Working on Country

First published in 2016 by the Central Land Council  
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FRONT COVER IMAGE: Ranger Jeffrey Foster receives training on Raindance, an aerial incendiary system used in fire management.

BACK COVER IMAGE: Some of the participants in the CLC's 2016 ranger camp at Blue Bush Station.