

Kawidji Camp in the Djelk IPA



Why and what?

Djelk rangers are working to better protect the stone country within the IPA. Djelk rangers ran a camp from Kawidji on the edge of the Arnhem Plateau and west of Mankorlod outstation undertaking scientific and land management work including:

- Using motion-sensor cameras to build up the native animal story of the area, and understand how that might change with time.
- Managing fire and feral animals.
- Taking care of and learning from bim (rock art) and other important sites.
- Giving Traditional Owners an opportunity to join the camp and share their skills and experience
- Working with Maningrida Community Education College students and teachers under the Learning on Country program.



Working with landowners

Djelk rangers have a Plan of Management which landowners were consulted over and committed to as part of the IPA. This Plan outlines the work program for the rangers. But it is still necessary to always seek permission for on country activities under that Plan.

Djelk rangers and their NTG scientist Alys Stevens put much time into consulting with Traditional Owners to achieve permission for the camp.



Meetings with TOs were held at the Djelk ranger shed in Maningrida and on country at Mankorlod. The meetings were overseen by the Senior Ranger Victor Rostron (Maningrida), the Djelk Ranger Manager Brendan Bainbridge (Maningrida), with translation assistance provided by consultant Wesley Campion, as well as the rangers themselves (all meetings).



Who?

- Djelk rangers
- Traditional Owners and Djungkay
- Senior consultants for Djelk
- Maningrida school kids, teachers and advisors through the Learning on Country program
- Malabam co-ordinator Roland Faber
- Dr Robert Raven, University of Queensland
- Northern Territory Government scientist Alys Stevens



When?

26-30 August 2013






Where?

Kawidji is a camping place of the old people in Kurulk country, and is about 5km karrkad (west) from the permanently occupied Mankorlod outstation in the Djelk IPA.



At each place marked with this  symbol, we put 5 cameras, and left them out for 7 weeks.

Learning on Country

Djelk rangers and Maningrida CEC are working together through the Learning on Country program.

During this camp, senior and middle school students worked with the rangers to do biodiversity work, learn about bush tucker and medicine, use local plants to make instruments, shelters and art and learn some traditional dance.







An aerial photograph of a dry, open landscape with sparse vegetation and scattered trees. A herd of buffalo and pigs is visible in the center of the frame, moving across the terrain. The animals are dark in color, contrasting with the dry, brownish ground. The background shows more trees and a hilly horizon under a clear sky.

Feral animal management

- Buffalo and pig are a huge threat to country.
- They destroy habitat for animals, bushtucker for people and damage vital sacred sites.
- Senior rangers took the senior school Learning on Country students in the helicopter, to show them some of the huge damage buffalo and pig are doing to country.
- They explained that numbers are too high, and the effects flow on down the river system.



Camera trapping - set out

We were using cameras to look for small mammals, which are on the decline in northern Australia.

We put 5 cameras per site, at 10 sites in the Mankorlod area. We chose our sites based on habitat (rock country and areas with free water) and fire regime (fire free for > 2 years).

Sites were chosen and/or given approval for by landowners either from the car, or helicopter.

The rangers showed the senior school students how to set the cameras, and record their location using I-Tracker.





Camera trapping – pick up

We left our cameras out for 7 weeks, well into the build-up season.

A small team of rangers and Alys camped at Dukaladjarrandj and picked up all of the cameras in October 2013. The team had to camp on the Cadell River as there was no water left at Kawidji.

At each place where the cameras were, the team recorded general country and plant information about the area. For the sites accessed by car, this was helped by a woman elder with particular botanic skills who could provide language name and flowering and fruiting information to assist with the scientific identification.





Results

We 'captured' 37 native animals on our cameras:

- 19 birds including *borrobborro* (chestnut quilled rock pigeon) and *korrbuk* (common bronze wing)
- 10 mammals including *karndayh-karndayh* (sandstone false antechinus), *barrk* and *djukerre* (male and female black wallaroo), *yirrkbadj* (water rat) and *ngarrbek* (echidna)
- 7 reptiles including *burarr* (water goannas) and *kinga* (saltwater crocodile).

See end of this report for full species list.

We recorded 6 of the major feral animals in Arnhem Land:

- buffalo
- feral cattle
- donkey
- pig
- feral cat
- the cane toad.





Karndayh-karndayh
Sandstone false antechinus



HC600 HYPERFIRE
2013-09-07 11:53:39 AM

HC600 HYPERFIRE
2013-09-07 11:53:47 AM

HC600 HYPERFIRE
2013-09-07 11:56:10 AM

HC600 HYPERFIRE
2013-09-07 11:56:11 AM

HC600 HYPERFIRE
2013-09-07 11:56:12 AM M 3/3



HC600 HYPERFIRE
2013-09-07 11:58:15 AM

HC600 HYPERFIRE
2013-09-07 11:58:21 AM

HC600 HYPERFIRE
2013-09-07 11:58:22 AM

HC600 HYPERFIRE
2013-09-07 11:58:23 AM

HC600 HYPERFIRE
2013-09-07 12:00:29 PM M 3/3



HC600 HYPERFIRE

HC600 HYPERFIRE

HC600 HYPERFIRE

HC600 HYPERFIRE

HC600 HYPERFIRE

Kinga



Burrar
Water goanna





2013-08-30 7:20:08 AM M 1/3 10 26°C



2013-09-23 12:31:32 AM M 1/3 10 26°C



RW30

RECONA



RW55

RECONA



HC600 HYPERFIRE







2013-08-27 12:07:51 AM M 1/3

25°C



2013-10-03 01:22:55 PM M 2/3

31°C



2013-09-29 4:44:15 AM M 2/3

21°C



RG21

RG21

2013-10-03 01:50:14 AM M 1/3



RG20

RG20



RG20



17:11 PM M 1/3 0 33°C



Key points

- Our method of use of camera traps in this study has improved our ability to detect elusive species with cameras, particularly feral cats.
- We are off to a good start for developing and monitoring the fauna of the Mankorlod area using cameras.
- The method we used contributes to our NERP funded project to develop tools for biodiversity monitoring on indigenous lands.
- Working with the school and landowners on country helps Djelk deliver on their land management goals, as well as social, educational and cultural aims.
- Supporting and engaging with outstation communities is vital to managing healthy country.



Species list

Introduced species are coloured in red. The species list here shows the number of observations captured on camera. An observation is defined as a discreet event of a particular animal. For example, the saltwater crocodile triggered 30 photographs on the camera, but it was clearly only 1 individual that was captured by the camera at that time, therefore = 1 observation. Credit to T Mahney for sorting through and entering the data.

Group	Scientific name	Common name	# observations on camera
Bird	<i>Anhinga novaehollandiae</i>	Darter	1
	<i>Colluricincla woodwardi</i>	Sandstone shrike thrush	4
	<i>Corvus orru</i>	Crow	65
	<i>Cracticus nigrogularis</i>	Pied butcherbird	1
	<i>Dacelo leachii</i>	Blue winged kookaburra	1
	<i>Egretta novaehollandiae</i>	White-faced heron	1
	<i>Ephippiorhynchus asiaticus</i>	Black-necked stork	1
	<i>Geopelia humeralis</i>	Bar-shouldered dove	27
	<i>Geopelia placida</i>	Peaceful dove	4
	<i>Grallina cyanoleuca</i>	Maggie lark	2
	<i>Haliastur spheurnus</i>	Whistling kite	1
	<i>Microcarbo melanoleucos</i>	Little pied cormorant	1
	<i>Nycticorax caledonicus</i>	Rufous night heron	4
	<i>Petrophassa rufipennis</i>	Chestnut-quilled rock pigeon	6
	<i>Phaps chalcoptera</i>	Common bronzewing	2
	<i>Pomatostomus temporalis</i>	Grey-crowned babbler	2
	<i>Ptilonorhynchus nuchalis</i>	Great bowerbird	3
	<i>Threskiornis molucca</i>	White ibis	7
	<i>Threskiornis spinicollis</i>	Straw-necked ibis	3
		Bird Total	136

Group	Scientific name	Common name	# observations on camera
Frog	<i>Bufo marinus</i>	Cane toad	6
		Frog Total	6
Mammal	<i>Bos taurus</i>	Cow	1
	<i>Bubalus bubalis</i>	Buffalo	67
	<i>Canis lupus dingo</i>	Dingo	61
	<i>Equus asinus</i>	Donkey	5
	<i>Felis catus</i>	Cat	13
	<i>Hydromys chrysogaster</i>	Water rat	3
	<i>Macropus agilis</i>	Agile wallaby	16
	<i>Macropus bernardus</i>	Black wallaroo	53
	<i>Macropus robustus</i>	Euro	12
	<i>Pseudantechinus bilarni</i>	Sandstone false antechinus	1
	<i>Sus scrofa</i>	Pig	45
	<i>Tachyglossus aculeatus</i>	Echidna	2
	Unknown <i>Macropus</i> .	Unknown macropod	4
	Unknown medium mammal	Unknown medium sized mammal	1
	Unknown <i>Rattus</i> .	Rattus sp.	1
	Unknown small mammal	Unknown small sized mammal	2
		Mammal Total	287
Reptile	<i>Carlia sp.</i>	Rainbow skink	1
	<i>Cryptoblepharus sp.</i>	Snake-eyed skink	9
	<i>Ctenophorus caudicinctus</i>	Rock ring-tailed dragon	3
	<i>Crocodylus porosus</i>	Saltwater crocodile	1
	<i>Varanus mertensi</i>	Mertens' water monitor	14
	<i>Varanus mitchelli</i>	Mitchell's water monitor	1
	<i>Varanus sp.</i>	Monitor	2
		Reptile Total	31
		Grand Total	460

Acknowledgements

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For any further information, please contact djelk@bawinanga.com or Alys Stevens on alys.stevens@nt.gov.au







Northern
Territory
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