Uunguu

Wunambal Gaambera

Healthy Country Plan

A plan for looking after Wunambal Gaambera Country
2010 – 2020

Warning: This plan may contain images, names of or references to deceased Aboriginal people.

The Wunambal Gaambera Healthy Country Plan, was prepared for Wunambal Gaambera Aboriginal Corporation (WGAC) by: Wunambal and Gaambera people, the Wanjina Wunggurr Uunguu Traditional Owners of Wunambal Gaambera Country and written from their information by Heather Moorcroft, Planning Consultant, Bush Heritage Australia, Bevan Stott, Project Consultant, WGAC and Linguist, Thomas Saunders.

The information presented in all the maps and figures herein reflects traditional owners' views.

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Dedication

This Wunambal Gaambera Healthy Country Plan is a modern way for us Wunambal and Gaambera people to honour Manumordja, Bulun, Muduu, Banganjaa, Djanghara, Yamara, Baangngayi, Miyaawuyu, Juugaariitor, Djurog-gal, Gilingii, Buunduunguu, Awololaa, Baarrbarrnguu, Angaarambuu, Liinyang, Maanduu-Nuunda, Yuulbal, Freddie Yauubidi, Djalalarmarra, Biljimbirii, Didjingul and Jimmy Manguubangguu - our ancestors of many generations past.

We remember the hard work of our elders – Laurie Utemorrah, Daisy Utemorrah, Geoffrey Mangolomara, Wilfred Goonack, William Bunjuck, Louis Karadada, Pudja Barunga and those with us today Jack Karadada, Basil Djanghara and Lily Karadada – who for many years worked very hard to pass on traditional knowledge to us and to get our Wanjina Wunggurr Uunguu native title recognised for Wunambal Gaambera Country.

Today we admire the strength of our elders and grandparents who in their lifetime lived in two worlds – traditional and modern. In their younger years they lived traditional Wanjina Wunggurr life and culture on their graa (traditional country) looking after their Uunguu – living home.

This Wunambal Gaambera Healthy Country Plan will assist us Wunambal Gaambera people today to fulfill our cultural responsibility to look after our Uunguu and to pass to our children, a healthy Wunambal Gaambera Country.

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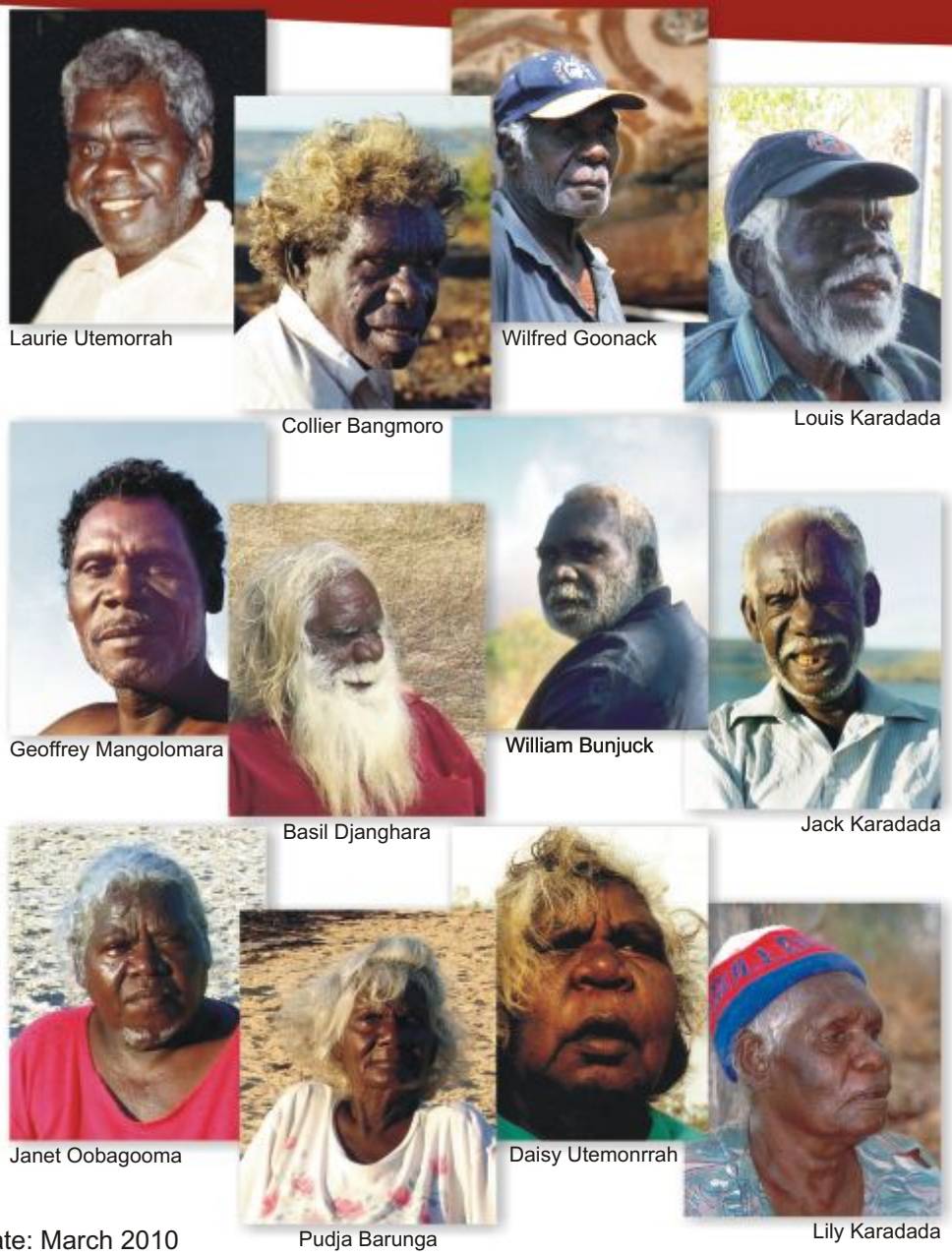

Date: March 2010

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Wanjina painting on bark. Artist: Lily Karadada

The Lalai (Dreaming) Wanjina creator spirit is surrounded by bark buckets used for carrying water, stone (caves and outcrops where Wanjina left their image), boomerang and barnarr (bush turkey).

The story of this plan

Uunguu

This Healthy Country Plan has grown from work that we, the Wunambal Gaambera traditional owners, have been doing since the late 1990s. In 1999 we lodged our native title claim. Then we made a management plan for Ngauwudu (WGAC 2001) and looked at tourism on our country (WGAC 2006). Together these things have helped us tell other people about how it is important for us to look after country and to make sure our unique cultural and natural assets and values are kept healthy and passed to our future generations. Other people have also said how important our country is and how it is one of the least changed places in Australia (Sattler & Creighton 2002). This Healthy Country Plan shows us and other people how we will keep our country healthy.

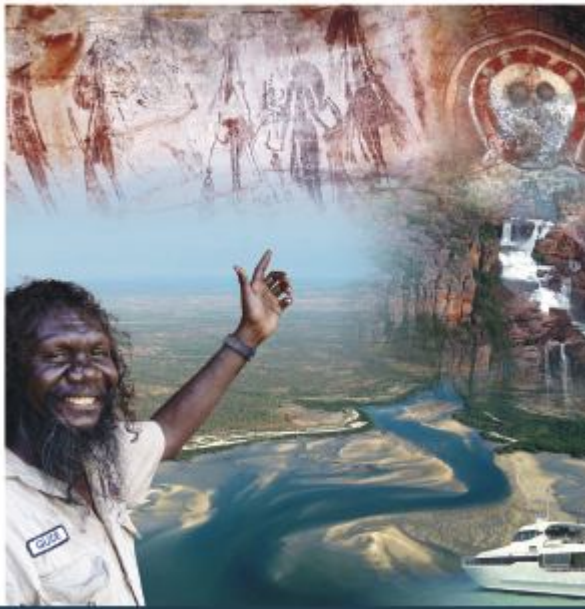
We had to make sure our plan has the right story and is strong for us. We have used the Conservation Action Planning (CAP) process to make this Healthy Country Plan as part of our Healthy Country Project (see Map 1 for the project area). We have had a series of big consultation workshops involving each family group, as well as smaller working group meetings, where we decided what should go in the plan.

We have set this plan up in four parts. The first part introduces us Wunambal Gaambera people and our Wunambal Gaambera Country. In the second part from pages 7 - 30, we put our ten year vision for a healthy Wunambal Gaambera Country and talk about the ten things that are most important to us to keep Wunambal Gaambera Country healthy – our targets. The next part of this plan looks at problems that may threaten the health of our targets and our country. In the last part of this plan from page 44, we put our objectives (goals) and strategies (ways) to look after and keep Wunambal Gaambera Country healthy as well as our monitoring of the plan.

Our Healthy Country Project has other parts that go hand in hand with this Wunambal Gaambera Healthy Country Plan. They are:

- The Wunambal Gaambera Healthy Country Plan Short Story Summary
- The Wunambal Gaambera Healthy Country Action Plan (which tells us and our Uunguu Land and Sea Management Rangers the detail of the work that has to be done)
- The Wunambal Gaambera Healthy Country Resource Book (which has more information on the natural and cultural values of our country and why it is important to look after our country)
- The declaration of Wunambal Gaambera Country as an Indigenous Protected Area (IPA) under Australia's National Reserve System with this plan as the IPA management plan
- The Wunambal Gaambera Plants and Animals Book and the Uunguu Field Guides (which will help us keep and pass on our ancestors' knowledge to our children and grandchildren and share our knowledge with others)

Planning workshop at Garmbemirri – looking at targets
Photo: WGAC



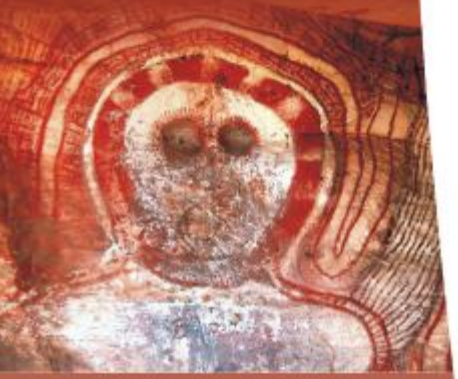
Location of Wunambal Gaambera Country

Uunguu

Map 1: Wunambal Gaambera Country and North Kimberley region

Our country and our people

Uunguu



Wuuyuruu Wanjina
Photo: WGAC

Gwion at Munurru
Photo: WGAC

Wunambal Gaambera Country, covering about 2.5 million hectares of land and wundaagu (sea), sits in the north Kimberley region of northern Australia (Map 1). This Country has been home to us Wunambal and Gaambera people for many thousands of years. Like our ancestors we call this country 'our Uunguu' – our living home. We Wunambal and Gaambera people, the Ngarinyin people of Willinggin Country and the Wororra people of Dambimangari Country, all come from the one Wanjina Wunggurr culture (Map 1) - we have the same ancestors. Our native title claim for Wunambal Gaambera Country is called Wanjina Wunggurr Uunguu.

Today we Wunambal Gaambera people live a different life to our ancestors. We live in two worlds – our ancestors' traditional Wanjina Wunggurr Law and culture and also modern Western law and ways of doing things – the first one is the most important to us. Our Wunambal Gaambera population today is some 400, who at present live in different Kimberley towns; most live in Kalumburu, some in Derby, Broome and Kununurra, and one family group live on their graa (traditional part of country) at Kandiwal on Ngauwudu (Mitchell Plateau).

The difference between traditional Law and modern law in showing how country is divided can be seen in maps 2 and 3. Map 2 shows the ten traditional Wunambal and Gaambera graa family countries that by our Law sit within the Wunambal Gaambera Country. Map 3 shows statutory land titles of reserves, leases and unallocated crown land. Most important in giving us strength and security to look after our country is recognition in Australian law of our native title that sits under these statutory titles.

Wundawoli on Gibulde country
Photo: WGAC

The Lalai story

Lalai, for us Wunambal and Gaambera people, is our story and belief of how and when our country was made, why it is the only place our ancestors called home and why we call this place our home (our Uunguu). We believe all the land, wundaagu (sea), heavens and all things in our country were put here by Wanjina and Wunggurr – our creators. They put the Law for us Wunambal and Gaambera people to live together, to live with our neighbours and to look after our country. They created our Wunambal and Gaambera languages and the Law for each family group to look after their graa (traditional part of Wunambal Gaambera Country – see Map 2).

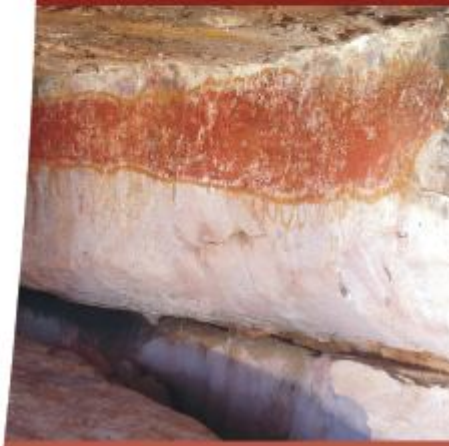
Lalai started in the time when the world was soft. Each Wanjina had a job to do to make our country. Wanjina are man and woman and are our ancestors.

Some Wanjina, like Rumitjmarra and Wundulii, carried 'stones that were wet and soft like a cloud' as they moved from Wanilirri (to our south) out through the land giving life and language to our country and our neighbouring Willinggin and Dambimangari Countries. These stones became caves and shelters where Wanjina rested. Wanjina left their images and their stories in rock art. Many Wanjina and other Lalai, like Gwion, are still with us today in rock art throughout Wunambal Gaambera Country. These shelters were home for Wunambal and Gaambera families over many generations.

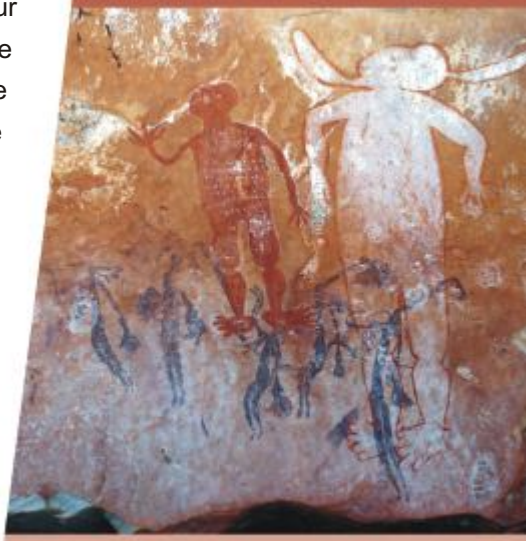
Wanjina is also in water, rain and cyclones. We see Wanjina, we call Gulingii, in wet season build-up clouds. Saltwater Wanjina (called Gayarra), like Ngamalii and Jagulamarra, made the wundaagu, coastal mountains, rivers, rocky shores, burrurrga (sandy beaches), darrngarla (mangroves), warrurru (reefs) and put all the things in our saltwater country. The Wanjina Walanganda became what aalmara (European people) call the Milkyway.

Some Wunggurr (snake) travelled from Lumerri, a place to the east in Willinggin Country, through Wunambal Gaambera Country, making rivers, yawal (waterholes) and hills. Some Wunggurr travelled the saltwater, some stayed in inland yawal, while others are found in waterfalls like Punamii-Uunpuu (Mitchell Falls) and stone arrangements throughout our country. Some Wunggurr from the saltwater still live in the wundaagu and can be seen as waves, tides and currents. The heads, tails and 'backbones' of Wunggurr are the islands we see today.

In the Lalai, the Law for caring for our country was made. We learn the Law from our ancestors' stories passed down from generation to generation. Some stories are sacred and can only be known by certain people. At rock art sites many images, like Gwion, remind us of the Law and the right way to act. Some images, we call Aagula, are warning signs and remind us of danger. Images of plants and animals show us what food can be found in that part of our country. Our country is like a bible to us.



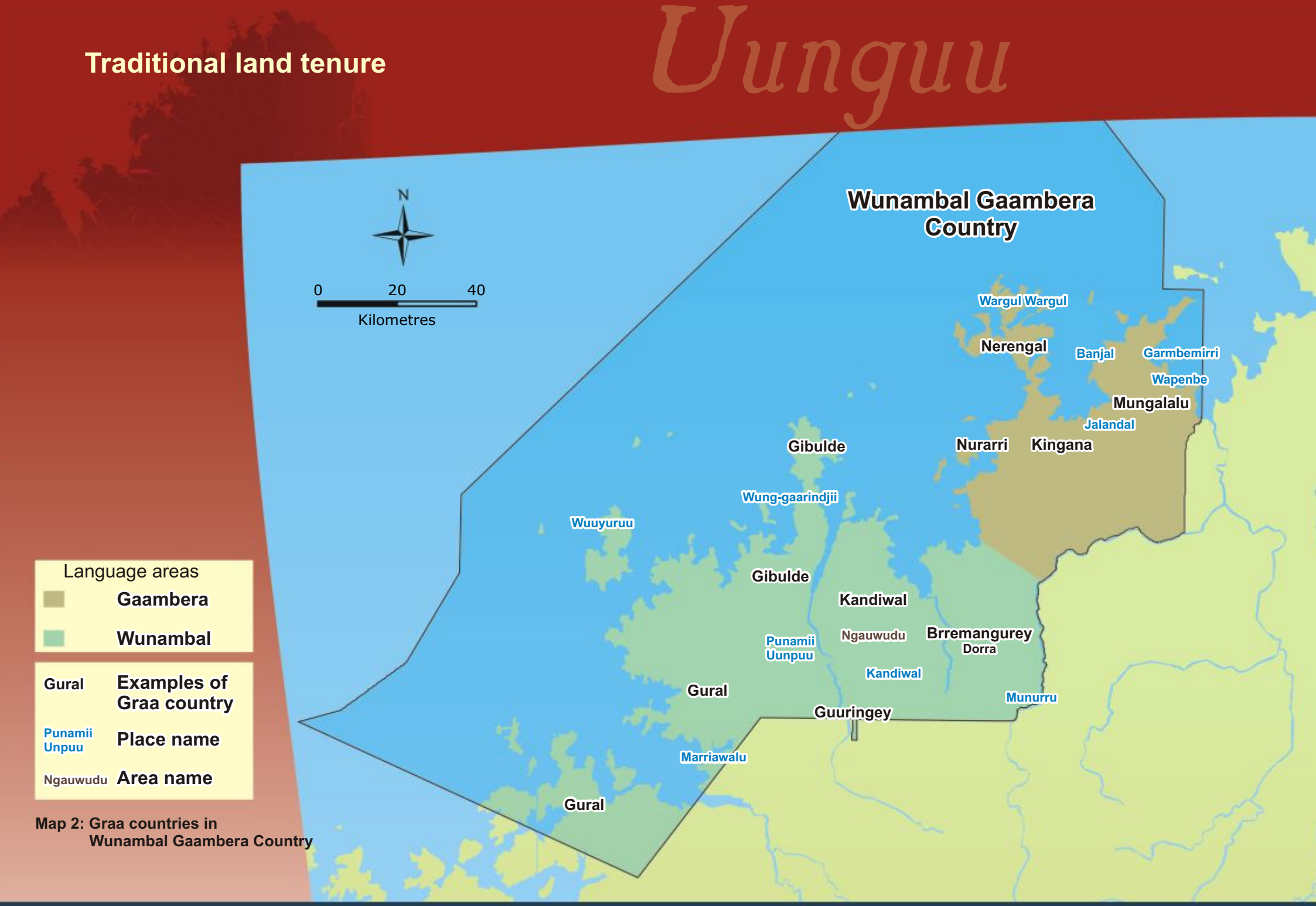
Wunggurr in Gaambera country
Photo: WGAC



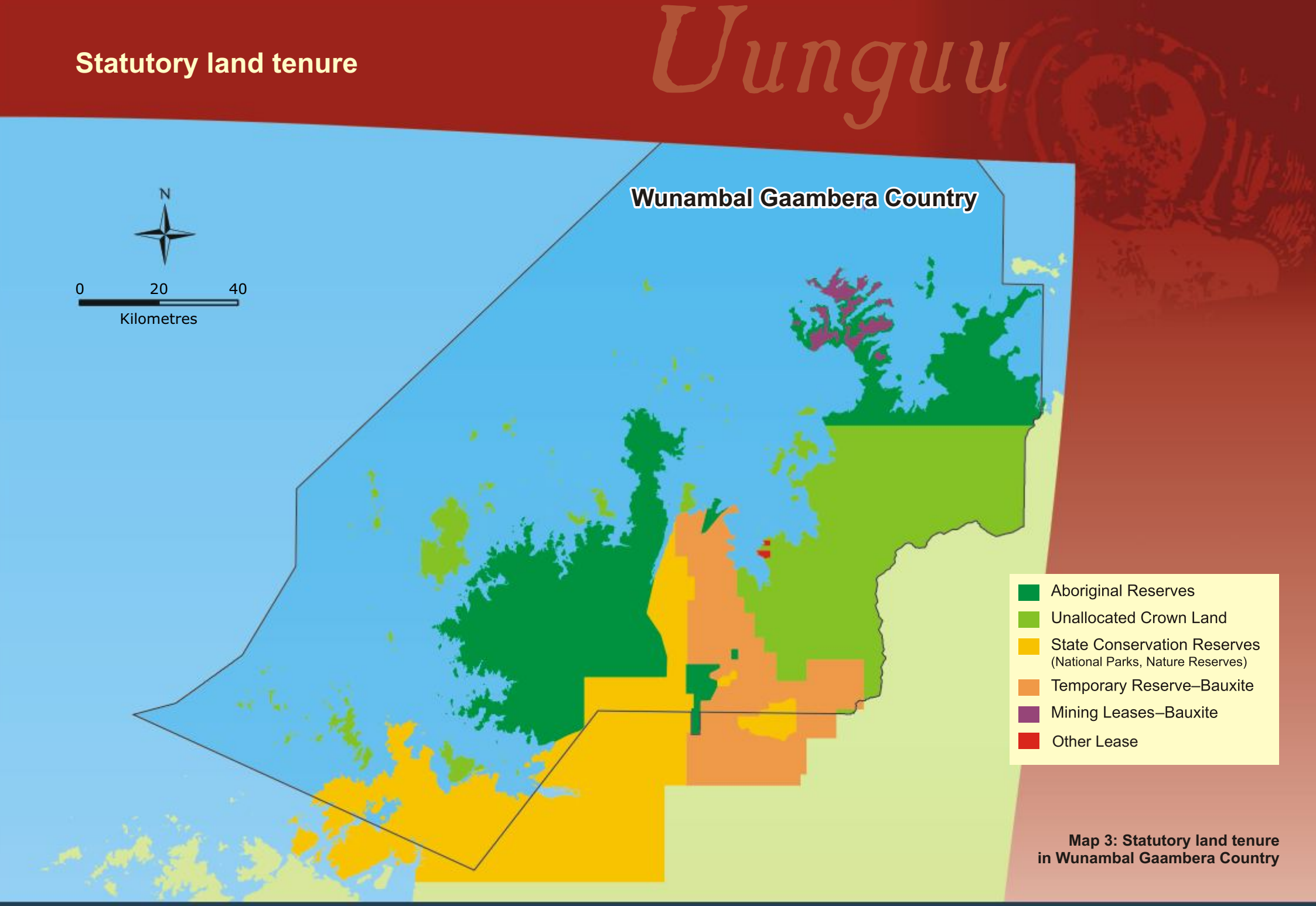
Aagula – Malaan – at Munurru
Photo: Heather Moorcroft

Traditional land tenure

Uunguu



Map 2: Graa countries in Wunambal Gaambera Country



Map 3: Statutory land tenure in Wunambal Gaambera Country

Our vision

Uunguu

Wunambal Gaambera Country is our living home - our Uunguu. Wunambal Gaambera Country and all things in it – including us, our culture and our traditions - came from our Wanjina and Wunggurr creators in the Lalai. Our Wanjina and Wunggurr Law gives us the rules and responsibility for looking after and keeping Wunambal Gaambera Country, all things in it and our culture healthy. Today there are also other ways of looking after country, using Western science and modern equipment. This plan will help us use these other ways with our traditional ways. By using both ways, we will look after our country and still make sure we follow our Law. This Healthy Country Plan is the story of how we will look after Wunambal Gaambera Country into the future. The CAP process got Wunambal Gaambera people back onto country for our first big healthy country workshop. Old people and young people sat down together and came up with the Uunguu vision for the future. This Healthy Country Plan will help us reach our vision.

Wanjina at Munurru
Photo: WGAC

Gayarra Wanjina in Brremangurey country
Photo: WGAC

Wunambal man, Sylvester Mangolomara
Photo: WGAC

Uunguu vision

It is our vision that in ten years time:

- we will be looking after our country in the way of our Wanjina Wunggurr Law
- we will be living on and making business from our country
- we will be protecting and sharing our cultural places as our traditional Law says
- we will be using our traditional knowledge and Western science to care for our country so that no plants and animals are lost
- we will be respected as the proper owners and managers of Wunambal Gaambera Country
- we will have ranger stations on country to help us look after country
- we, and our future generations, will have the cultural knowledge of our elders
- our country will be giving us and our future generations a healthy life

Our targets

Everything in our Uunguu is important to us and has to be looked after properly. We know from our traditional Law that everything in our Uunguu is connected. For our planning workshops we focussed on ten of the most important things of our Uunguu. We call these most important things 'targets'. By looking after these targets we know we will be looking after other things in our Uunguu. This is like when we go hunting for aamba (kangaroos and wallabies), we also do other things along the way. We might do some burning to clean the bush to bring back green shoots for aamba to feed on. We might collect some bush fruit or we might visit a rock art place and make sure branches are not rubbing off the paintings. So even though we are going hunting, at the same time we are doing lots of other things to look after our Uunguu.

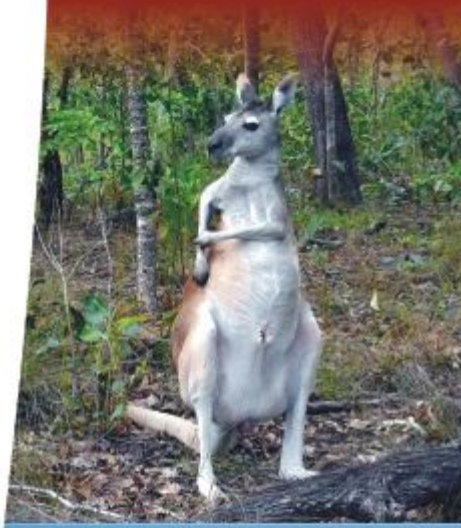
The ten most important things we chose to focus on for looking after our Uunguu are:

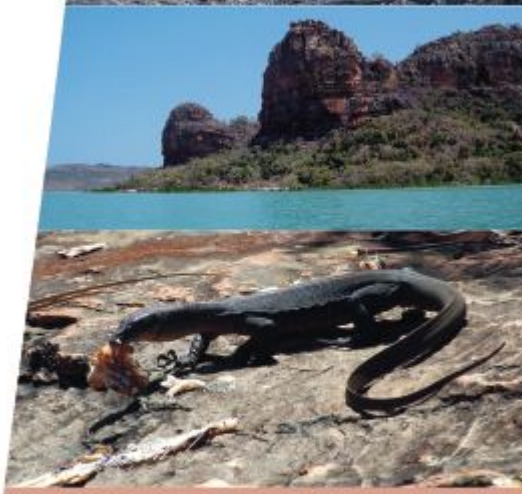
1. Wanjina Wunggurr Law – our culture
2. Right way fire
3. Aamba (kangaroos and wallabies) and other meat foods
4. Wulo (rainforest)
5. Yawal (waterholes)
6. Bush plants
7. Rock art
8. Cultural places on islands
9. Fish and other seafoods
10. Mangguru (marine turtles) and balguja (dugong)

When we are looking after our targets the right way we are also looking after other things that are important to us and to aalmara (European people). Under the CAP process we call these things 'nested targets'. For example, there are plants and animals that don't occur anywhere else (endemic species), plants and animals that are important for other reasons (i.e. threatened or migratory), places that are important (ecological communities), or things that people from elsewhere want to protect (nationally or internationally significant). We know that when we are doing work to look after our targets we are also taking care of all these other things (nested targets). Our nested targets are listed in Appendix 3.

The next pages of this plan look at the story for each of our targets. While looking at each target we also did a 'health check'; this health check is shown in Table 1 (page 29).

Uunguu Ranger Raphael Karadada on freshwater turtle survey
Photo: Robert Warren





Photos (top to bottom):
Walamba (antilopine kangaroo), Marriawalu on Gural country, wobarda (water monitor)
Photos: Ian Morris, WGAC, Tom Vigilante

Our targets

Target 1: Wanjina Wunggurr Law – our culture

Banjal Gwion
Photo: WGAC

It is important for us to follow our Law. We need to introduce ourselves to the spirits of our ancestors before visiting a Wanjina or Wunggurr place. We have to talk in our language so our ancestors know who we are and who we have with us. We need to make offerings at some places and 'smoke' people when they are leaving places. For some places we must respect that only men or women can visit.

'There are three reasons for smoking people; welcome them in, make sure spirit doesn't take you to bush, and after mourning to welcome them [the wife and in-laws] *back to talk to people. Even with a rambarr* [mother-in-law who normally has an avoidance relationship] *we can cry with them on the last smoke* [after mourning period].*'* Sylvester Mangolomara

When we go hunting we need to talk to country. When we go fishing we have to talk to the wundaagu (sea). We only get enough food for what we and our family need. When we get aamba (kangaroos and wallabies) we have to cook and share the meat the right way, and bury the bones and skin. We have to teach our children the language names of all the plants and animals, and how to tell by the seasons and other ways when things are ready to hunt or eat, like in our seasonal calendar (Figure 1). If we don't follow our Wanjina Wunggurr Law bad things could happen. We have to look after Wanjina Wunggurr cultural places like Lalai and rock art places, burial sites and waterholes.

Our Wanjina Wunggurr culture is strong when mums and dads are using language and teaching their children language and cultural stories. Wanjina Wunggurr culture is strong when we are on country, in our living home, our Uunguu, learning about country, passing on knowledge about how to burn country, hunt, fish, collect, prepare and cook bush tucker the right way. The Uunguu seasonal calendar (Figure 1) is a good way to help pass on our traditional knowledge to future Wunambal Gaambera generations.

People who visit our country have to respect it and do the right thing. Some visitors mock our Law and do not show respect. Some Wanjina rock art has been damaged by graffiti. Photos have been taken of Wanjina, Gwion and burial sites, and put into books and newspapers without our permission. Burial sites have been disturbed, our ancestors bones moved and some taken away. Strangers pick up Wunggurr stones. People have ideas about using our country and some of these ideas, like bauxite mining, could change our country forever.

The Wanjina Wunggurr Country, which includes Wunambal Gaambera Country, is the only place in the world where our Wanjina Wunggurr Law and culture can be. We have to make sure all decisions about using our country, our Uunguu, and ranger work to look after our country, is done in accordance with our Wanjina Wunggurr Law. Our Wanjina Wunggurr culture will stay strong and healthy if all these things happen.

Traditional dance on Maret Islands
Photo: WGAC

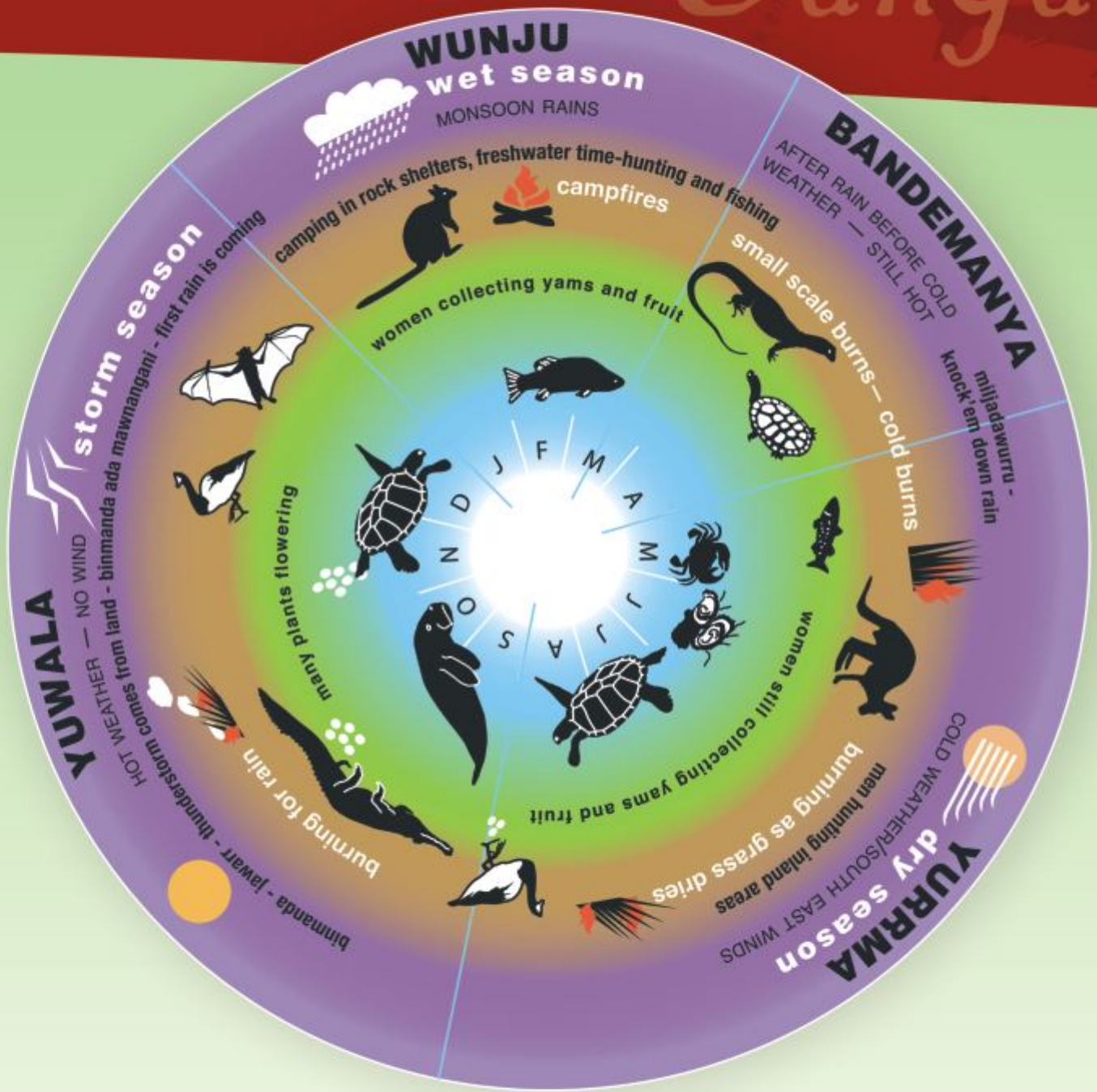


Figure 1: Uunguu seasonal calendar

Our targets

Target 2: Right way fire

Fire is one of the most important things we use to look after and keep our country healthy. Fire helps bush foods like fruits and yams grow and it makes new grass for animals to eat. If we burn at the wrong time it is no good, as some animals can't escape. Many plants that are special to our country rely on fire to grow again or cannot survive if there are too many hot fires. Guru (cypress pine) is one of these plants that can be harmed. Food and medicine plants like gun.gurru (cycad *sp.*) on Ngauwudu (Mitchell Plateau), and gulay (green plum), rely on country being burnt the right way for their fruit to grow properly. Gun.gurru is special because it does not grow anywhere else in the world. Animals that eat plant seeds, such as wirrirri (finches including the gouldian finch), rely on fire to make plants flower and fruit at the right time.

'If fire not happening the right way, it might affect all the animals and plants.' Sandra Mungulu

Uunguu rangers planning aerial burning with DEC staff
Photos: WGAC

Fire is medicine for our country and medicine for our people. Smoke from burning guru helps with congestion and blocked nose. Fire is also a signal that can tell us what is happening in our country. Fire has a spiritual importance in our culture. We use it in smoking ceremonies when visiting Wanjina and Wunggurr places and for spiritual cleansing during other ceremonies.

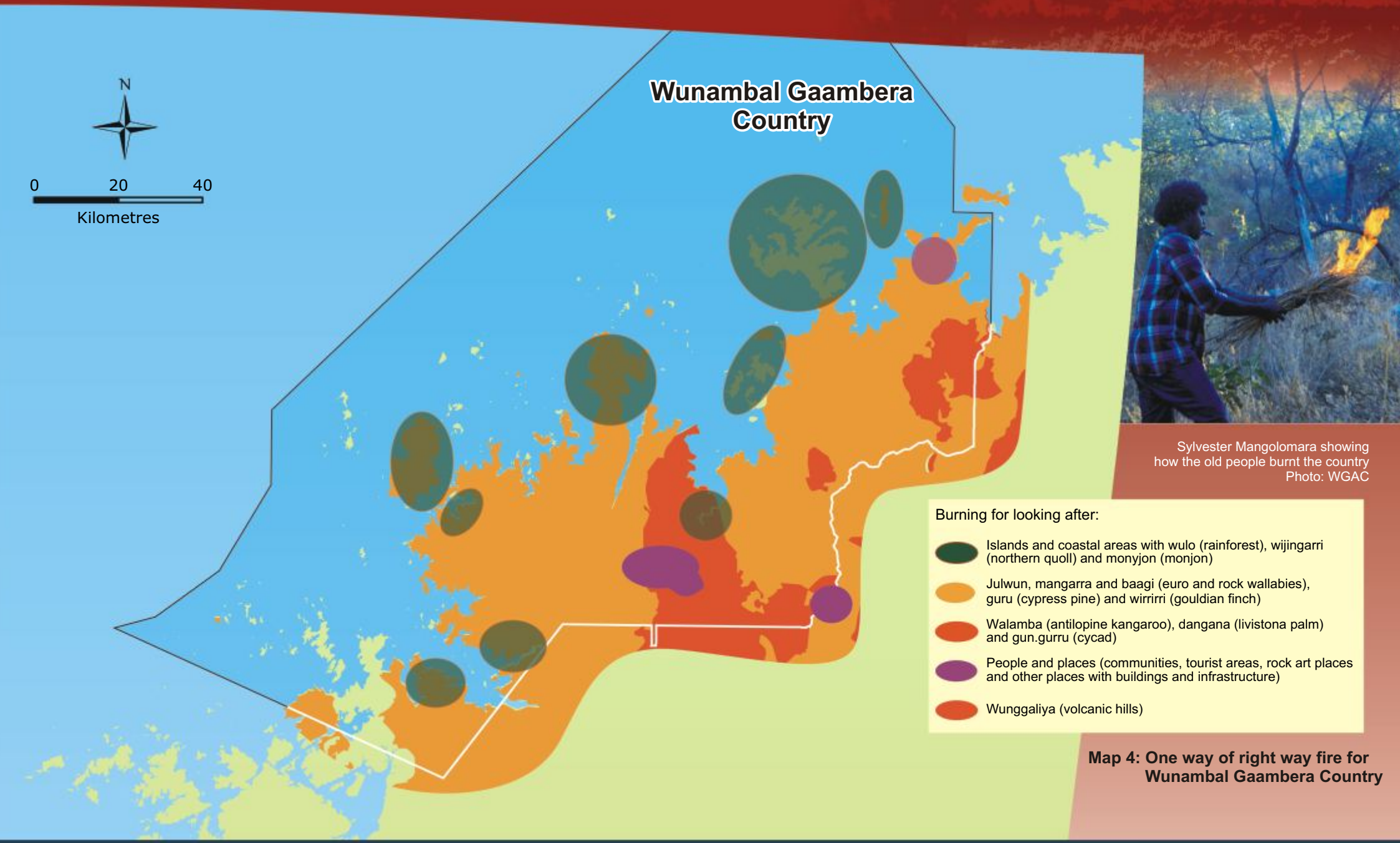
'Some cultural sites we smoke.' Margaret Mungulu talking about carrying out a smoking ceremony after visiting a site.

Malgarra (wildfires) are a worry as they happen in the hot season, burn lots of country and can damage our cultural places and other parts of our Uunguu like plants and animals. The old way of lighting fires while walking is a respectful way to look after country. Today our rangers also burn country that is hard to get to from helicopters. Mixing both the old way and this new way is good for our Uunguu. If fire is not done the right way in wulo (rainforest) some tree and plant types die and the wulo gets smaller. If fire is not done the right way the wulo can spread over the moree (savanna woodland) which means less open country for aamba (kangaroos and wallabies).

Our islands need right way fire as there are important cultural places that need to be looked after. The islands are also safe refuges for some animals so fire has to be done the right way to make sure they stay healthy. Whichever way we burn, each family has a responsibility to do right way burning to keep their graa (their traditional part of country) clean and healthy.

'Fire is a living thing you know ... use fire in the right way, it will help you.' Sylvester Mangolomara

We have started on a fire management plan for our country. We have also done aerial burning with Western Australian Department of Environment and Conservation (DEC), and fire walks through country. Working with neighbours to do right way fire is also important. Burning the right way and at the right time means there is less smoke which helps reduce climate change. Scientists call this 'carbon abatement'. There is growing opportunity to make business of right way fire. Less smoke and carbon in the air helps stop the world heating up and changing our climate.



Sylvester Mangolomara showing how the old people burnt the country
Photo: WGAC

Map 4: One way of right way fire for Wunambal Gaambera Country

Our targets

Target 3: Aamba (kangaroos and wallabies) and other meat foods

Walamba (antilopine kangaroo)
Photo: Ian Morris

Jebarra (emu)
Photo: Ian Morris

When we talk about aamba and how we should look after them we are also talking about other meat foods found in the moree (savanna woodland) such as yadarra (sand goanna), garndula (plains goanna), jebarra (emu) and barnarr (bush turkey).

'When grasshoppers hopping around ... that's when the goanna and turkey are fat.' Esther Waina

In the old days, aamba was one of the main meat foods and each animal would feed one or more families. It is still one of our favourite bush foods. We know of eight types of aamba that live on Wunambal Gaambera Country and each one lives in a certain area as shown on Map 5. We hunt them all. Aamba that live on the wumanggarr (sandstone and sand plains) are easier to catch than aamba that live in the wunggayila (volcanic hills). Aamba in wunggayila are more protected from predators. The seasons tell us when aamba will be fat and the time to hunt. When the muyun (base of aamba tail) is fat we know the aamba will taste good.

'We eat 'em all, they are fat at different times.' Janet Oobagooma

Burning the right way is important for making sure there is enough food for aamba to grow healthy. Traditional hunters used fires to herd aamba into an area where they could be speared. Hunting would normally be at dawn or at dusk needing many men to help. The men would be painted with ant hill dust so their smell was hidden. Today we hunt with rifles. We have traditions that we follow on how aamba are cut a certain way and cooked on a fire or in a ground oven.

'Chuck 'im in fire, burn all the hair off in the flames. When the flames settle down cut 'im tail off and chuck 'im in the hole .... until he cooked.' Mervyn Jangoot

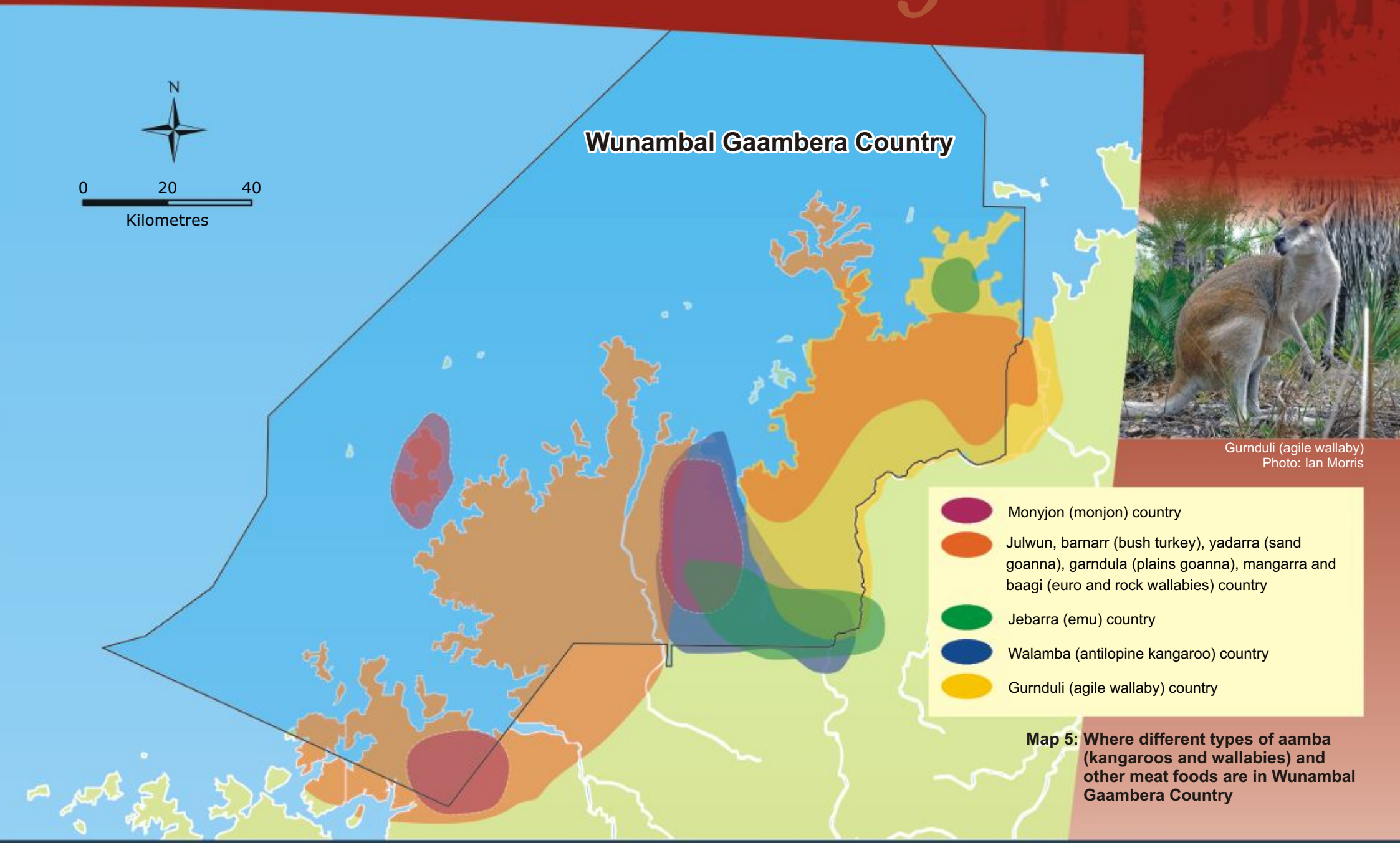
We also have traditional stories for aamba. It is important that our traditional knowledge for hunting, burning country, cooking aamba and other cultural knowledge is passed to our younger people. This helps look after aamba and make sure the population is healthy all the time.

Our country is valuable and special because there are not many places left in the world like it, where all the animals that were here before aalmara (European people) came are still here. The monyjon (monjon), the smallest rock wallaby in the world, is only found on Wunambal Gaambera Country.

Aamba is part of wunan business – our story for the ways our old people ran the Law, shared and made business with family groups, in-laws, close-up and long way neighbours. Aamba is important to our Law and culture.

'Kangaroo plays a major role in our Dreamtime, that's why it's in every rock art.' Sylvester Mangolomara

Uunguu



Gurnduli (agile wallaby)
Photo: Ian Morris

Map 5: Where different types of aamba (kangaroos and wallabies) and other meat foods are in Wunambal Gaambera Country

Our Targets

Target 4: Wulo (rainforest)

Wulo at Hunter River
Photo: Ethnoecological Services

Wundarla (bombax) canoe tree in wulo on Wargul Wargul (Bougainville Peninsula)
Photo: Tom Vigilante

One Wanjina, Wirralawirrala, and his Gwion wife, made the wulo and all the yam and other foods found there. Wulo is found throughout Wunambal Gaambera Country; in wunggayila (volcanic hills) and wumanggarr (sandstone and sand plains). Pockets of wulo are on the side of hills, in gorges, along rivers and on the coast and islands. Wargul Wargul (Bougainville Peninsula) has many large areas of wulo. Wulo is mostly protected from wildfire and the plants and animals that live in wulo do not like fire.

Wulo has lots of different food and medicine plants, as well as other plants that we use. The main things we collect are gunu (round yam), garnmarngu (long yam) and fruit like gulangi (black plum). We also hunt animals in wulo, such as jarringgu (black flying-fox) and diigu (birds) like the nyulbu (Torres Strait pigeon) and collect yinari (bird eggs). The jarringgu, like lots of other animals, has a special Dreaming story and song about it.

'Fruit, he might have some medicines in the forest – we get what we want and go back.' Sandra Mungulu

Wulo can be a dangerous place. It is dark and there is thick forest and lots of vines. The spirits in the wulo can be harmful to children, so it is important that they visit with an adult. Traditional knowledge about wulo needs to be passed on to future generations.

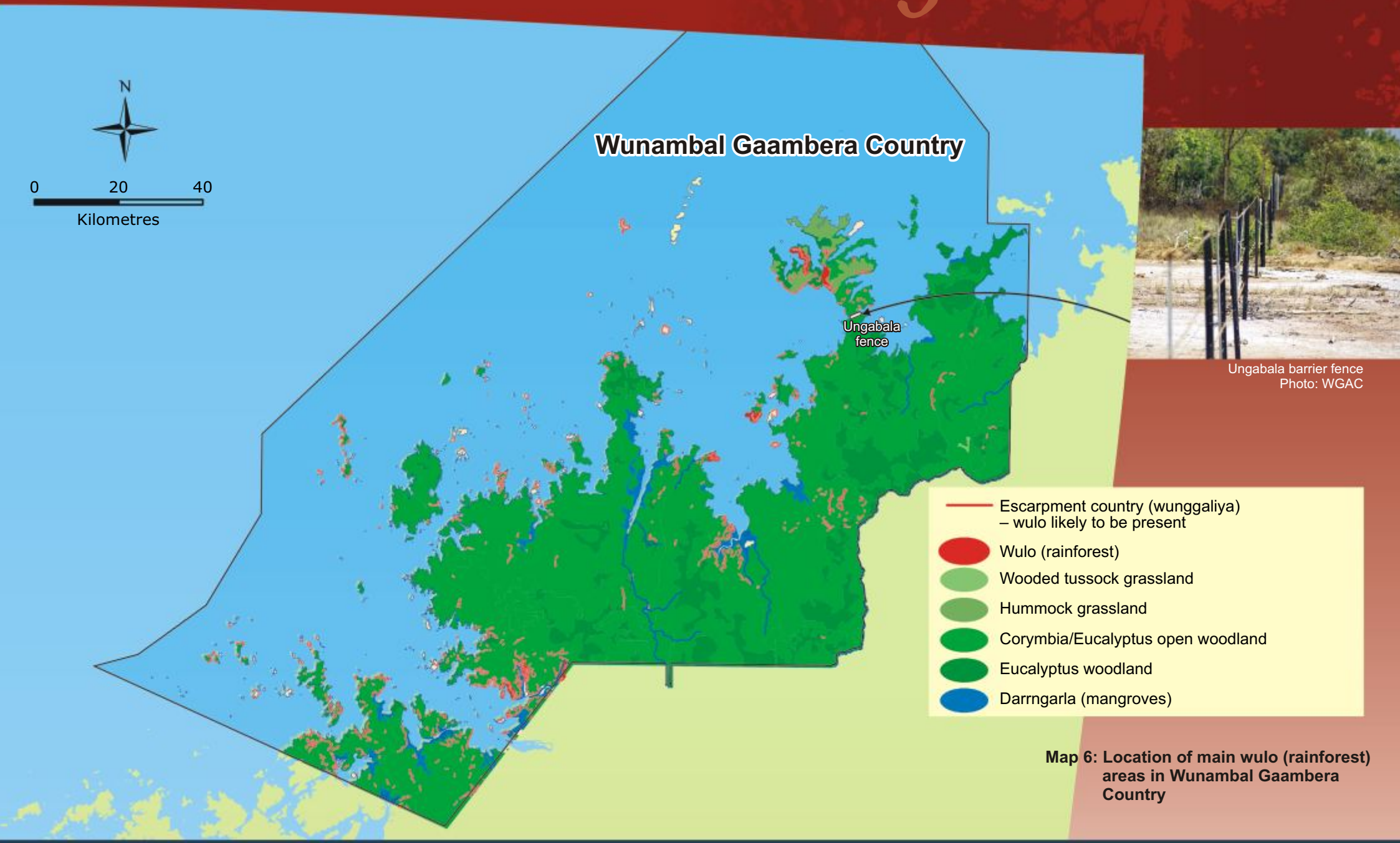
Wulo has more different types of plants than the moree (savanna woodland). Wulo is also a special place for lots of diigu. Gangala (orange-footed scrub-fowl) build big nests on the ground. Mandamanda (rose-crowned fruit-dove) and jurul (emerald dove) also live there. Some animals and plants that live in wulo are threatened or endemic. These include the wunggangbarn (golden-backed tree-rat), the rough-scaled python, luulun (bush mouse), yabuli (land snail) and wunggurrwunggurr (earthworm) and a hibiscus plant.

We need to keep track of what is happening in the wulo to make sure it stays healthy. At springwater places, big feral animals like bulumana (cattle) come in and dig up the ground and bring in weeds making it hard for native plants to grow. The fence at Ungabala (See Map 6) that we look after stops bulumana from getting into wulo on Wargul Wargul. When the cane toad comes some of the animals that eat them will not be so healthy. Crazy ants could come in on boats from overseas and upset the balance of things in the wulo. Right way fire is important for wulo. Wulo at Wargul Wargul and Ngauwudu (Mitchell Plateau) are threatened by bauxite mining.

Nyulbu
(Torres Strait pigeon)
Photo: Ian Morris

Wulo at Steep Head Island
Photo: Ethnoecological Services

Uunguu



Ungabala barrier fence
Photo: WGAC

Map 6: Location of main wulo (rainforest) areas in Wunambal Gaambera Country

Our targets

Target 5: Yawal (waterholes)

Yawal (waterholes) are all freshwater places on country – rivers, creeks, springs, billabongs, floodplains, swamps, waterfalls, rock holes and underground water. Yawal give us drinking water and bush foods like yarn.gun (waterlily), gaawi (freshwater fish) such as amalarr (black bream), wobarda (water monitor), bulunggurrngei (freshwater turtle) such as gonjarra (long-necked turtle) and bone (short-necked turtle), goya (freshwater crocodile), laarru (freshwater mussel), marralu (freshwater prawn) and ngulugngee (magpie goose). Useful plants like the dang.gai (paperbark – *Melaleuca argentea*) and ngarli (paperbark – *Melaleuca leucadendra*) used for cooking, collecting water, medicines, tools and shelters, are found around yawal. Aamba (kangaroos and wallabies) and other animals, move from one yawal to the next, so we know where to find them. Diigu (birds) show us where yawal are. If there is no water or the water looks dirty, we dig a filter for clean water.

'Too much humbug in town ... at Kandiwal we go out fishing and hunting ... gotta go to the big crossing [Munurru] *to get turtle.'* Bernice Goonack

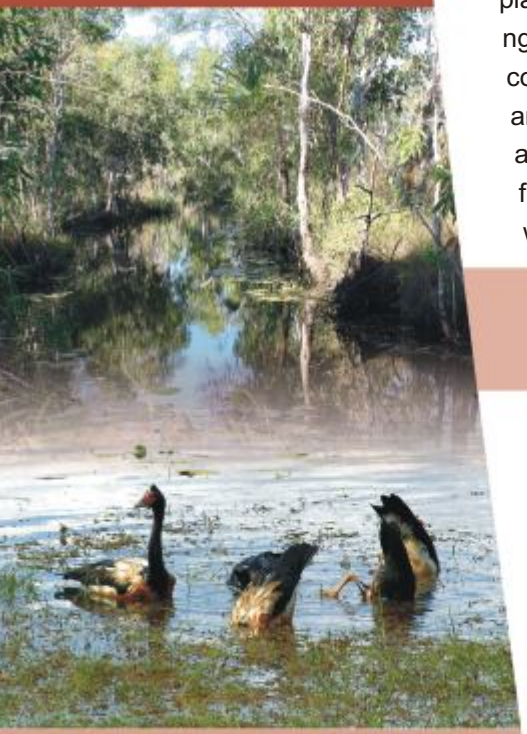
Yawal are like a cultural map of our country. Our ancestors travelled from yawal to yawal, camping, hunting and carrying out cultural traditions. Some yawal are Wunggurr places and can only be visited by certain people following traditional Law, like first throwing a stone, talking in language or wiping underarm sweat. Some yawal are places where spirits of children live waiting to be found by their fathers. People cannot swim at some Wunggurr places, like Punamii–Uunpuu (Mitchell Falls), because Wunggurr living there could be offended and cause harm to those swimming.

'You got to respect the ancestors when you come to a yawal ... when we come to the yawal, we talk to it in our language.'
Victor Barunga

For yawal to be healthy they need to be clean with the right water levels, so they can provide food for us and animals. Some yawal have been recognised as being 'pristine' or 'wild'. The rivers in the region have a high number of different types of gaawi. Nguyarri (Airport Swamp) and Glauert's Lagoon (Map 7) are recognised as special wetlands. Endemic and threatened species, like wirrirri (finches including the gouldian finch) and the dalal (wrens including the black grass-wren), live around yawal. The Mitchell River system is a nationally important wild river and wetland.

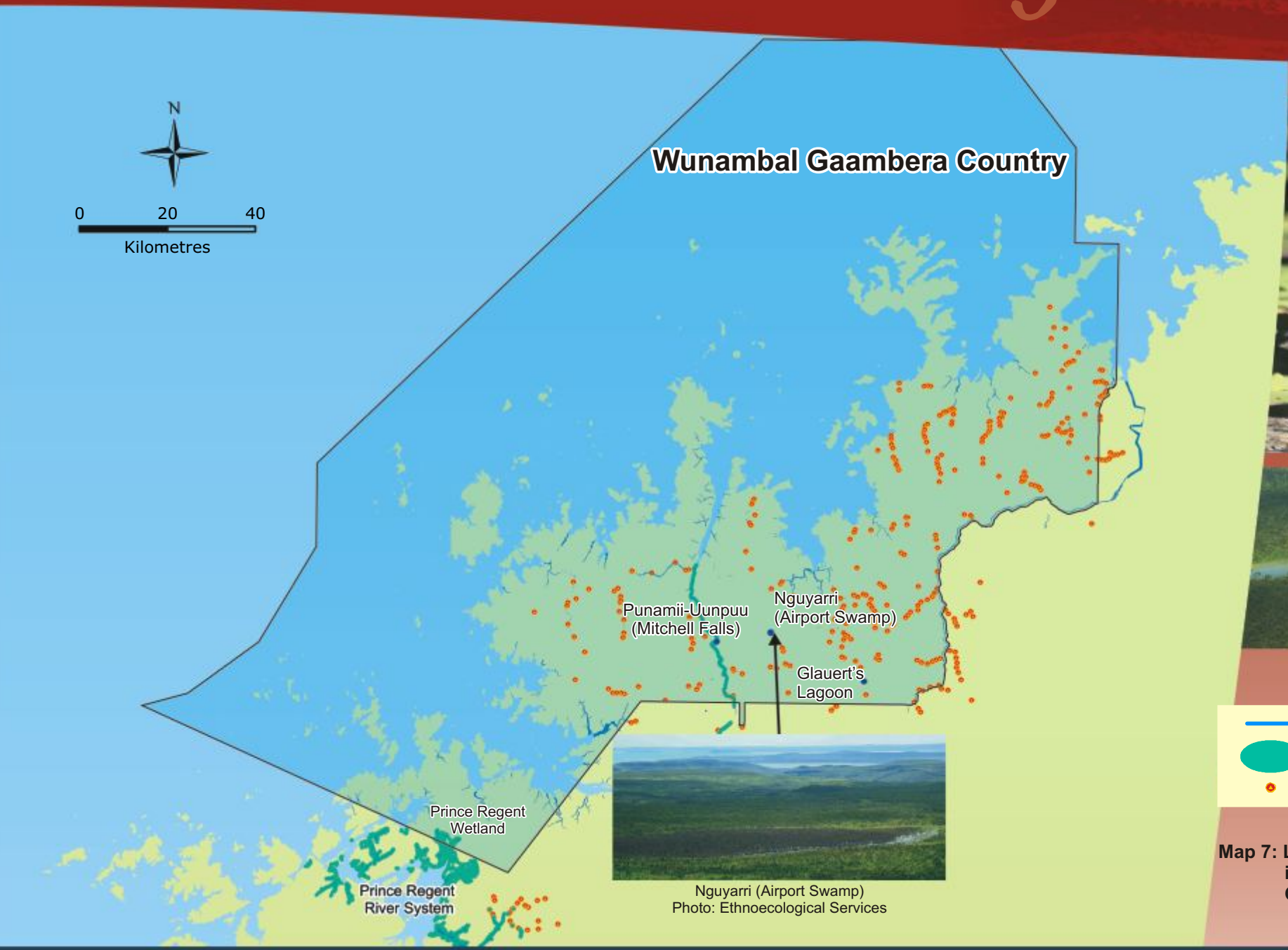
Cane toads will do lots of damage to animals like wobarda that live in and around yawal. Bulumana (cattle) dig up yawal, pollute and make them dirty, and some animals get stuck in the boggy water. Weeds from other parts of northern Australia could be a big problem if they get into our yawal. People can damage yawal if camping toilets are not put in the right place or too much water is taken. Bauxite mining could change yawal by changing the way water moves in the country. Climate change may make saltwater come into coastal yawal.

Our rangers have done some survey work on bulunggurrngei with the University of Canberra and WA Department of Water. Work like this will help us understand more about yawal, the animals and plants that live in them and also how threats like cane toads might impact on them.



Ngulugngee (magpie geese) collecting aanuu (water chestnuts)
Photo: Ian Morris

Uungu



Nguyarri (Airport Swamp)
Photo: Ethnoecological Services

Yarn.gun (waterlily)
Photo: WGAC

Seasonal yawal
Photo: Ethnoecological Services

- Permanent water place
- Wetlands
- Yawal (waterholes)

Map 7: Location of yawal (waterholes) in Wunambal Gaambera Country

Our targets

Target 6: Bush plants

Janet Oobagooma showing how to get cabbage from dangana (livistona palm)
Photo: Lyndall McLean

Langanda (bush almond)
Photo: WGAC

We use plants for bush tucker, medicines, tools, weapons, and art and craft. We also use plants to tell us when bush tucker and meat foods are ready to collect, hunt and eat. If bush tucker and meat food taste good, our country is healthy.

We read our country like aalmara (European people) read books. By seeing what plants are flowering we can tell what animals are fat and ready to hunt and eat. The plants are like a seasonal calendar to us (see figure 1). Dang.gai (paperbark) tells us when amalarr (black bream) are ready to eat. Aamba (kangaroos and wallabies) are fat when yarla (kapok bush) is blooming. We hunt or collect wobarda (water monitor), bunjumarru (mud-crab), gunwa (sharks) and anjuwarr (stingrays) when certain other plants are flowering. The orange flowers of arn.gurru (woollybutt tree) tells us marlinju (oysters) and bunjumarru are ready. Gulay (green plum) flowers tell us that the goya (freshwater crocodile) eggs are ready to collect.

Our country is like a big supermarket. Women collect a range of bush foods at different times of year and from different parts of our country (see Figure 2). We collect and eat fruits such as langanda (bush almond), gulangi (black plum), gulay, jiliwa (river fig) as well as yams like gunu (round yam) and garnmarngu (long yam). We collect yarn.gun (waterlily) and aanuu (water chestnut) from billabongs and swamp areas. We get gun.gurru (cycad *sp.*) to make flour and eat the pith of dangana (livistona palm). There are many more plant foods we eat.

Our country is also like a hospital to us. We can get sap from the bloodwood tree to use as antiseptic, boil it to put on ulcers and use it as a cough mixture. We use smoke from burning guru (cypress pine) to help with congestion and keep mosquitoes away. Wuljari (emu bush) stops toothache. We still use bush medicine today if we have no tablets. These are some of the plants we use for medicine.

For many generations we have been using plants like warrgarli (wattle) to make spears, barrurru (stringybark) for paintings, baby cradles, water buckets and food bags. Our old people used bark from barrurru to build shelters, humpies or houses. We use danbuu (freshwater mangrove) to paralyse fish for hunting. Marjal (canegrass) we use to start campfires. Jiliwa is used for making artefacts.

'Use paperbark like a plate, you know goanna, kangaroo, fish ... when we got no blanket in the bush you use it.' Susan Bangmorra

Our knowledge of plants comes from our ancestors. They lived off the country. We need to keep learning from our country.

'A bush trip we take 'em [children]*, like school holidays, show 'em fish and plant foods, medicines when we find the trees, what time to get 'em - they all seasonal of course.'* Sandra Mungulu

Over 1600 plant species are on our country and over 100 of these do not occur anywhere else. Some of our plants can be used for business, and that helps us to live on country. We are making a book that lists our plants and animals in our language and in English to help us use and learn about our bush. This book and field guides will help our rangers in their work to look after country.

John Jangoot points to gun.gurru (cycad *sp.*) on Gural country
Photo: Tom Vigilante

Food plant
Medicine plant
Tool/utensil plant
Indicator plant

Figure 2: Typical bush plants in a Wunambal Gaambera Country landscape

Our targets

Target 7: Rock art

Rock art in stone country is there for a purpose. In the Lalai, our creators left their images we see as paintings today in caves and overhangs. The paintings show our living home, our Uunguu. There are Wanjina, Wunggurr and Gwion images, animals, fish from the wundaagu (sea) and gaawi (freshwater fish) and diigu (birds). There are some paintings of Macassans (people from the Indonesian island of Sulawesi) who used to visit here, as well as ngaliwan (Tasmanian tiger) that lived here. Every painting has a song and a story. They are like history books.

Only certain people are allowed to refresh paintings and it has to be done the proper way with ochres. It is important that our traditional knowledge and Law for rock art - how it was done, why it is important and how to keep it strong - is passed on to future generations.

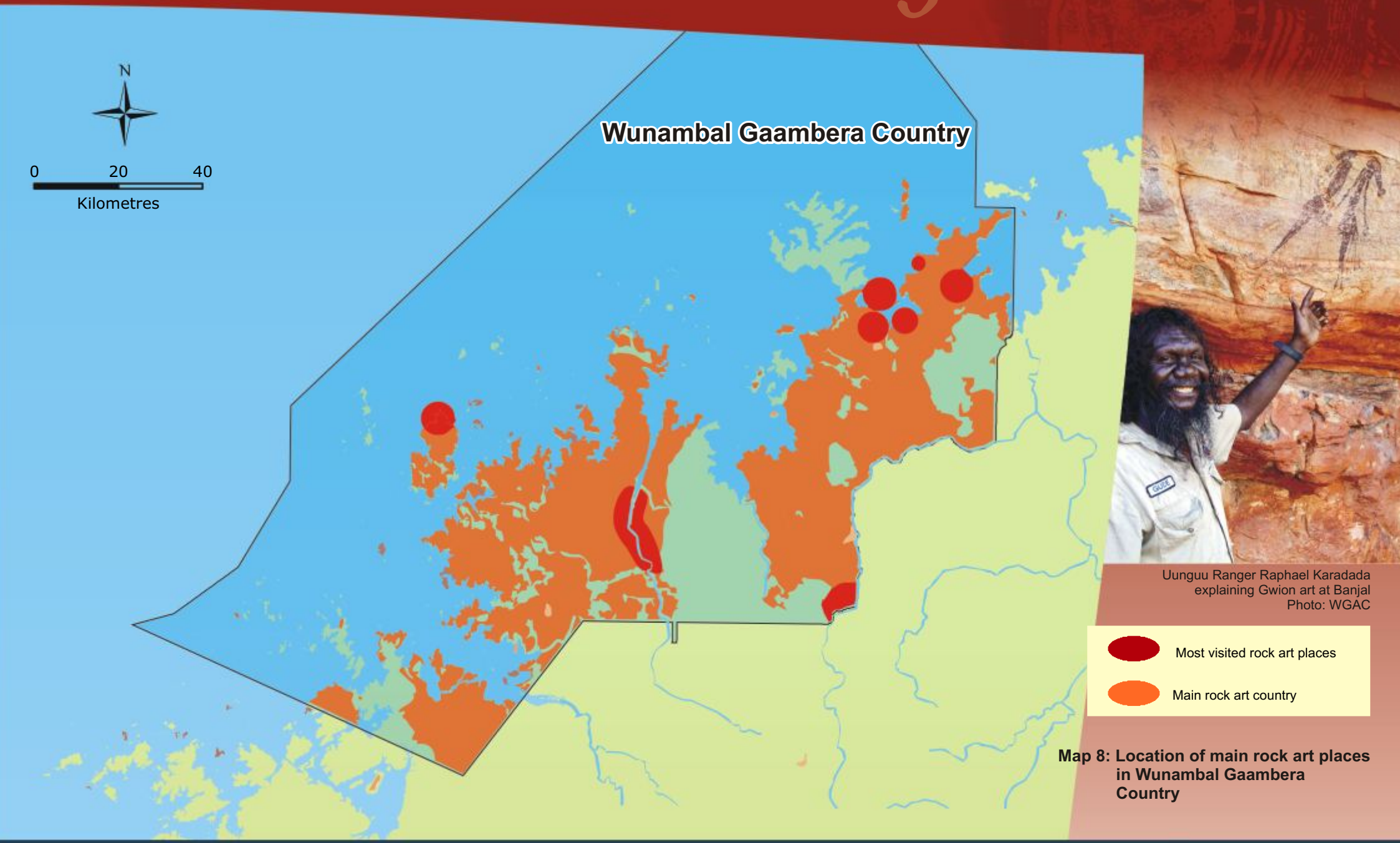
Regular visits to our rock art help us to keep our culture strong and healthy. We have been looking after our rock art, like building barriers at Jalandal to keep feral animals away and Munurru to stop visitors from getting too close to paintings and burial sites. We have a lot more work to do to keep rock art fresh and healthy. We need to remove wasp nests and termite tracks; stop water running over the paintings; keep fires and feral animals away from rock art places and visitors from getting too close to paintings. We cannot look after all our ancestors' paintings at the same time; we need to follow a list of the ones to do first. Industries like mining and tourism could cause harm to our rock art sites.

Gayarra (saltwater Wanjina) at Jalandal
Photo: WGAC

Many aalmara (European people) have given our sacred rock art other names, like calling our Gwion Bradshaw figures. Some aalmara have done studies of our rock art and put pictures of it in books without our permission. We are happy to share our cultural knowledge as long as it is done the proper way. We have put together the Uunguu Visitor Management Plan to help us manage visitors to our country. It will help us to make sure visitors only go to places we have given permission to visit and visitors help pay the costs of keeping our cultural places healthy for future generations to enjoy. Visits to our ancestors' places are to be respectful of our culture and a learning experience for the visitor.

Protecting rock art sites: walkway at Munurru and barrier fence at Jalandal
Photos: WGAC

Uunguu



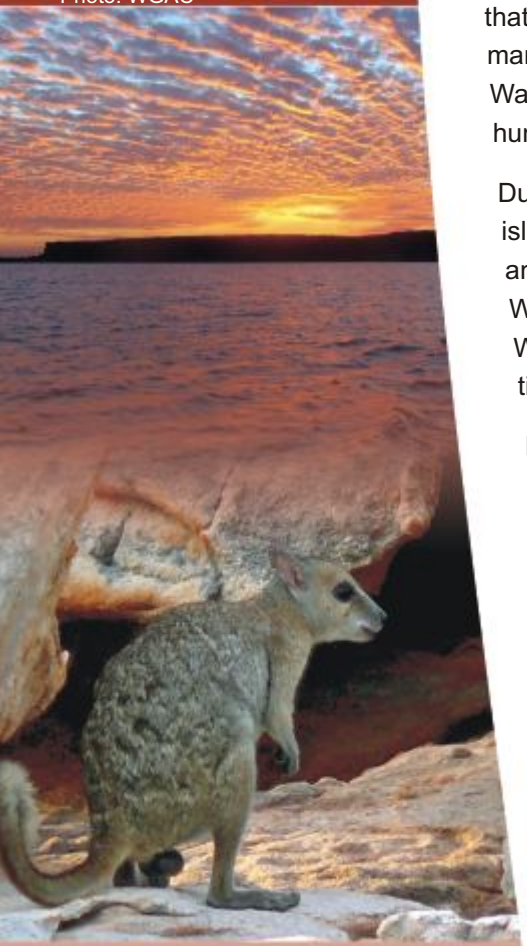
Uunguu Ranger Raphael Karadada explaining Gwion art at Banjal
Photo: WGAC

Map 8: Location of main rock art places in Wunambal Gaambera Country

Our targets

Target 8: Cultural places on islands

Maret Island
Photo: WGAC



Monyjon (smallest rock wallaby in the world)
Photo: Ian Morris

All islands in Wunambal Gaambera Country are special places. Some have burial sites, rock art, stone arrangements, middens, or some might be a Lalai place. Some islands have food and medicine plants, ochre and animals that we collect in the right season. Islands can be a main place for mangguru (marine turtles) to lay their amiya (turtle eggs). Warrurru (reefs) are important to our culture and for fishing and hunting areas.

During Lalai, saltwater Wanjina and Wunggurr created the islands, warrurru and daagu (deep sea). Their images in rock art and stone formations are on some of the islands. On one island Wunggurr's eyes give us freshwater. Some islands show the Wunggurr story about holding back rising wundaagu (sea) and tides.

In the past some people lived on islands that had permanent water, like Wuuyuruu (Bigge Island). Our old people had ways to collect water where there were no permanent springs. Some islands and travel routes following the currents and tides, were important in our ancestors' wunan (traditional sharing and business) trading system between our families and our neighbours.

Our old people used rafts or dug-out canoes made from wundarla (bombax tree) or maa (Leichhardt tree) to sail the tides and currents to get from the mainland to islands and warrurru. Macassans (people from the Indonesian island of Sulawesi) camped on some islands using them as bases for collecting bujulum (trepang).

The islands are a safe place for animals like monyjon (monjon), bund/larri (golden bandicoot), wunggangbarn (golden-backed tree rat), wijingarri (northern quoll), and many diigu (birds) like marrnga (white-bellied sea-eagle) and garrimarl (terns), as they are away from feral animals and hot wildfires. It is important our islands are kept healthy for these animals. Our rangers have worked with scientists from the Western Australian Department of Environment and Conservation (DEC), Western Australian Museum, Australian Museum and the Kimberley Land Council (KLC), doing biological surveys on some of the bigger Wunambal Gaambera islands. We need to do more surveys of the islands and warrurru to check their health and the impacts of climate change.

We worry that some of our cultural places are being damaged by people who shouldn't be there. We worry because rubbish such as nets and buoys are washed up on islands. Some burial sites have been disturbed and our ancestors' bones moved. This is not respectful, as the spirits of our people buried there might not know where to go.

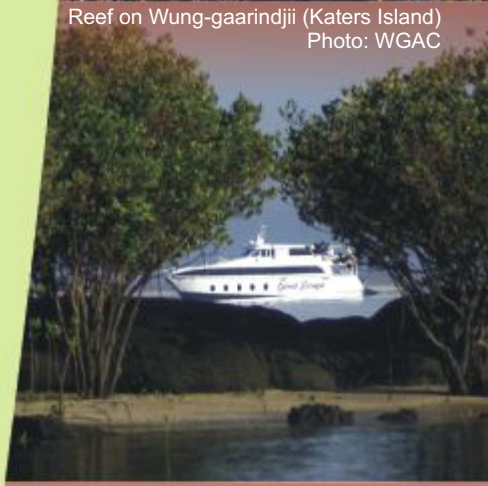
'Tourists are putting skulls on display, so I had to put them back in a safe place. I felt a bit eerie but after I did it I felt right.' Sylvester Mangolomara

We could be punished by our ancestors for not looking after our country properly. We will use our Uunguu Visitor Management Plan to help us keep our islands healthy. Climate change can also mean some of our cultural places on islands may be lost or damaged from rising saltwater.

Uunguu

Graffiti at Fenelon Island
Photo: Piers P. Snow

Reef on Wung-gaarindjii (Katers Island)
Photo: WGAC



Cruise boat in Wunambal Gaambera Saltwater Country
Photo: WGAC

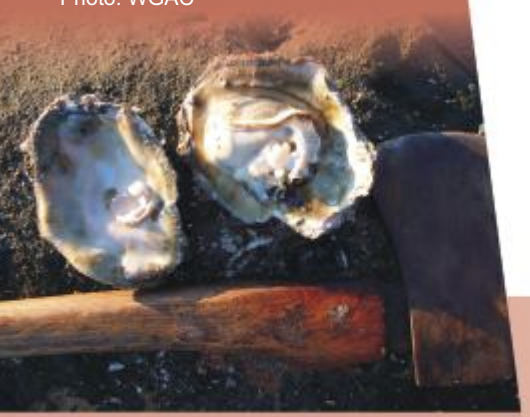
Islands in Wunambal Gaambera

Map 9: Islands of Wunambal Gaambera Country

Our targets

Target 9: Fish and other seafoods

Fishing at Garmbemirri
Photo: WGAC



Marlinju (oyster)
Photo: Tom Vigilante

We have strong traditions for collecting and harvesting fish and other seafoods from the wundaagu (sea) and warrurru (reefs). These traditions from the Lalai are in our songs, stories and paintings. They tell us what fish and seafood to collect when they are fat and ready to eat. For instance you don't go looking for marlinju (oysters) in the rainy season as they are out of date, like a tin in a shop. The gunwa (sharks) and anjuwarr (stingrays) are fat when the gunggunya (march fly) bites. The bunjumarru (mud-crab) are fat when the arn.gurru (woollybutt tree) flowers. Our traditional knowledge includes how to prepare and cook fish and other seafoods. In our Law some families may not be able to eat fish because it is their totem.

'We are all seasonal hunters, get the right size.'
Desmond Williams

We collect fish and other seafoods from different places and in different habitats. We collect food, medicines and bait such as m/rrgalu (sweet mangrove worm) and gudbingarri (cheeky mangrove worm), ngarrwan (red emperor/mangrove snapper), bunjumarru, ngarrwar (periwinkles) and marlinju from the rocky shoreline and darrngarla (mangroves). We collect clams and fish from warrurru. We catch other fish on the tidal areas and warrurru such as: wunbarlu (blue-bone groper); gaadai (white lips); wumalawa (rock cod); yuguru (queenfish), bayalu (blue-spotted stingray); and munungiyunga (barramundi).

'We've been told the traditional way to bleed the barramundi to get rid of that mercury of the fish.' Victor Barunga explaining that some fish need to be prepared a certain way to get rid of toxins.

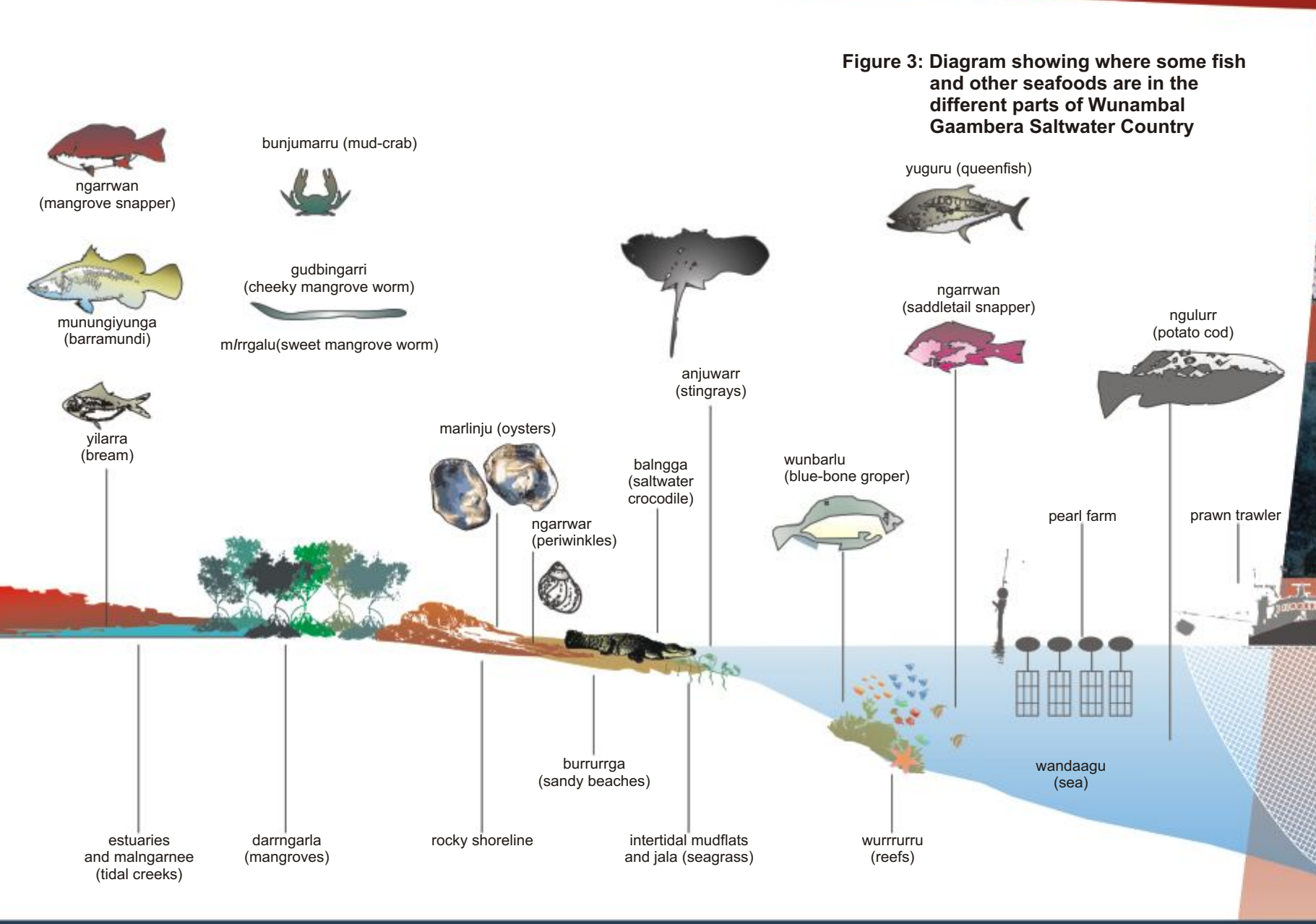
Our old people built stone fish traps to catch fish like munungiyunga. They also fished from canoes and rafts. Today we catch fish with a fishing line or spear. Sometimes we ask marrnga (Brahminy Kite) to help us find fish. We only fish at the right place, at the right time and by doing the right thing. We always eat what we catch. We don't keep it for another time.

'We used to go in those canoes from Kalumburu to Truscott [Mungalalu] – *mum, dad, me and ...'* Regina Karadada

Fish and other seafoods are healthy when the saltwater is clean and when we can catch enough to feed our families. It is our cultural responsibility to make sure that the saltwater is clean and that there is always enough fish and other seafoods for future generations. Industry like pearling, which has farms in our country, also needs clean saltwater. They need to help us look after saltwater country.

We are worried about overfishing from trawlers and tourists. We worry that the government rules aren't strong enough or aren't being followed and there is not enough checking. People leaving fish scraps make balngga (saltwater crocodile) cheeky and dangerous. Rubbish in wundaagu and on burrurrga (sandy beaches) like nets, fishing lines and buoys, are also a problem and can hurt fish and other animals like mangguru (marine turtles). Pollution and oil spills from boats, ships and platforms can harm fish and other seafoods. Illegal foreign fishing vessels (IFFVs) that come to our warrurru to get bujulum (trepang), shark fins and clam shells could bring in marine pests. Our rangers do coastal patrols for the Australian Quarantine and Inspection Service (AQIS) to check whether any rubbish or animals like foreign ants are getting on our country.

Figure 3: Diagram showing where some fish and other seafoods are in the different parts of Wunambal Gaambera Saltwater Country



Bunjumarru (mud-crab)
Photo: Ian Morris

Bayalu (blue-spotted stingray)
Photo: Ian Morris

Our targets

Target 10: Mangguru (marine turtles) and balguja (dugong)

Jala (seagrass) beds at low tide
Photo: Dhimurru Aboriginal Corporation

Young mardumal (flatback turtle)
Photo: Ian Morris

Mangguru (marine turtles) and balguja (dugong) are important in our saltwater culture and traditional stories. Mangguru and balguja are important foods in our traditional diets. Of the five different species of mangguru in our country, the main one we hunt and eat is juluwarru (green turtle). We hunt for mangguru and balguja in calm waters when the south east winds are blowing.

In our custom only certain people are allowed to hunt mangguru and balguja. Turtle hunters are called manggurungay. The main ways of hunting are from a boat using a garr.garr (harpoon/spear), jumping on them in the wundaagu (sea) or when they come up on the burrurrga (sandy beaches). One animal will feed a few families, but certain people get special parts. Mangguru are good to eat when there is plenty of shoulder fat. We know to be careful when eating maral (hawksbill turtle) as certain parts can be poisonous.

'Meats that you can share, dugong or turtle ... sharing system cannot disappear.' Janet Oobagooma

We collect amiya (marine turtle eggs) to drink raw or to cook. We can find amiya by poking the beach sand, or following the tracks of yadarra (sand goanna) and garndula (plains goanna) and watching them dig amiya up. We can get yadarra and garndula to eat as well. Old people used to travel a long way in canoes to collect amiya and survived on amiya when they had no water.

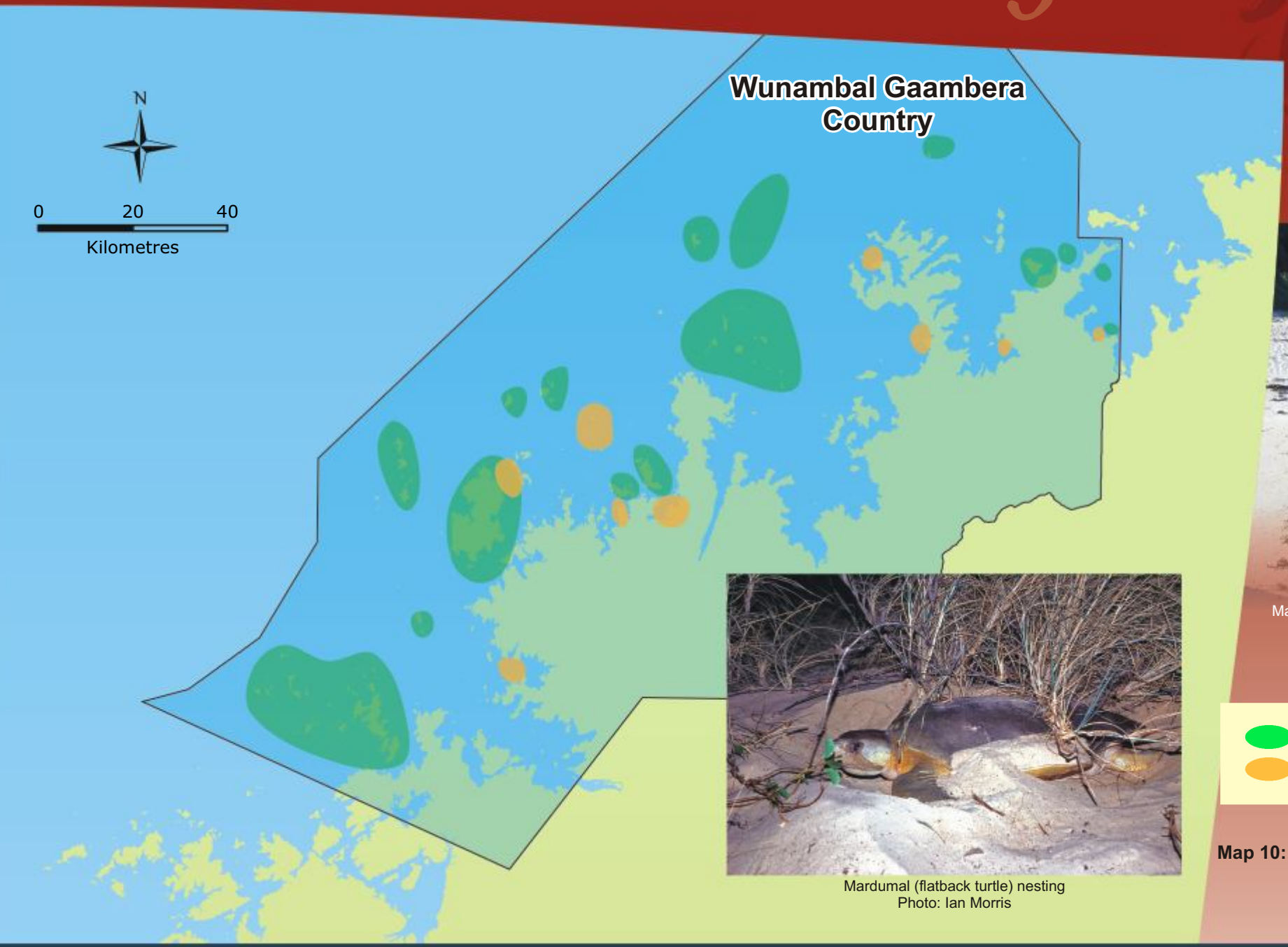
'We used to go hunting there on Maret Islands, to get those eggs.' Regina Karadada

Jala (seagrass) is found in many tidal bays in our saltwater country. Jala is one of the main foods for both mangguru and balguja. Mangguru spend time in warrurru (reefs) and daagu (deep sea). Daagu is also home for wul/ji (whale), yingarl (dolphin) and munumba (snub-fin dolphin). Aalmara (European people) say these animals are significant as they are threatened and migratory.

A healthy and clean saltwater country is important for mangguru and balguja. Pollution like oil from boats, platforms or ships can cause problems for mangguru and balguja, as well as for lots of other wundaagu animals. Mangguru sometimes think plastic bags are food, eat them and get sick. If our climate warms up then the rise of the wundaagu level may change the amount of burrurrga available for nesting. Hotter temperatures may also affect amiya changing how many males and females hatch. Weeds can grow on mangguru nesting beaches and make it hard for them to lay amiya. Mangguru can get caught in fishing trawlers nets and drown.

Our rangers have done some trial survey work on mangguru and balguja with the North Australian Indigenous Land and Sea Management Alliance (NAILSMA). We need to find out more about mangguru, balguja and other saltwater animals including diigu (birds). We need to know more about where they travel, their habitats in our country and how to look after them. Working together with other saltwater traditional owner groups across northern Australia using our traditional knowledge, doing surveys, tagging and looking after saltwater animals, fish, diigu and their habitats, will help us keep these animals healthy in our country as well as keeping our saltwater traditions strong.

Mangguru (marine turtles) and balguja (dugong) places in Wunambal Gaambera Country



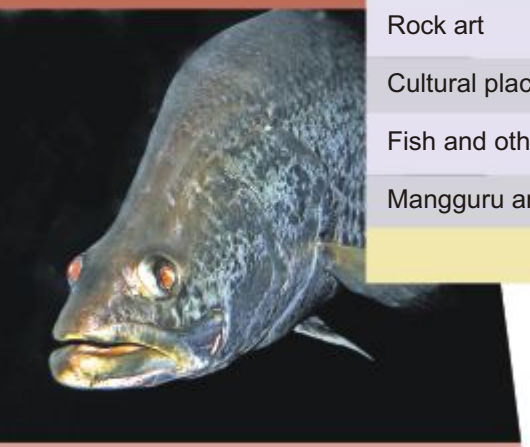
Mardumal track on South Maret Beach
Photo: WGAC

Mardumal (flatback turtle) nesting
Photo: Ian Morris

Map 10: Some mangguru (marine turtles) and balguja (dugong) places in Wunambal Gaambera Country

The health of our targets

Walamba (antilopine kangaroo)
Photo: Ian Morris



Munungiyunga (barramundi)
Photo: Ian Morris

By looking at how healthy each key part of the targets are, we figured out the overall health of our country. Our understanding of the health of each of these key parts is based on our knowledge, the knowledge of our project partners and results of scientists work done with us on our country. However, for some key parts we do not have a lot of information, so we need to make sure we do research on these things to get a better understanding of their health.

Table 1: The health of our targets

Key parts of target / Target	Landscape/ seascape health	Cultural health	Biophysical condition	Size	Overall health
Wanjina Wunggurr Law – our culture 1	Good	Poor	-	-	Fair
Right way fire 2	Fair	Fair	Fair	Fair	Fair
Aamba and other meat foods 3	Good	Fair	Good	Good	Good
Wulo 4	Good	Fair	Good	Good	Good
Yawal 5	Very good	Fair	Good	Good	Good
Bush plants 6	Good	Fair	Good	Good	Good
Rock art 7	Good	Poor	Fair	-	Poor
Cultural places on islands 8	Good	Poor	Fair	-	Poor
Fish and other seafoods 9	Good	Fair	Good	Good	Good
Mangguru and balguja 10	Good	Fair	Good	Good	Good
Overall Health of Wunambal Gaambera Country:					Fair

Rating explanation

- Very good = The key part of the target is very healthy and does not need too much work to be done to keep it very healthy.
- Good = The key part of the target is healthy and may need some work to be done to keep it healthy or to make it very healthy.
- Fair = The key part of the target is not healthy and needs work to be done to make it healthy again. If no work is done it will get worse.
- Poor = The key part is unhealthy and if no work is done soon to make it better then it may never be healthy again.

Table 1 shows the results of the health check-up of our country. This check-up shows that the overall health of our country is 'Fair' (yellow). It shows that the key parts of landscape/seascape, biophysical condition and size are healthy – 'Good' (green) or 'Very good' (dark green). However our check-up of the key part of 'Cultural health' for each target is 'Fair' (yellow) or 'Poor' (red). This is mainly because we are not looking after our country as well as we could be, damage is being done to cultural places and we are not passing on our traditional knowledge as much as we should be. Even though we still have a lot of traditional knowledge and are still connected to our country, this check-up shows that we need to make our 'Cultural health' stronger so that we can keep our country healthy. This has to happen soon before the overall health goes to 'Poor' (red). At each health check-up over the next ten years, the life of this plan, we need to see the 'Cultural health' of the targets move from 'Poor' (red) and 'Fair' (yellow) up to 'Good' (green) and maybe 'Very good' (dark green).

Today we live in two worlds, our own Wanjina Wunggurr culture and aalmara (European people) culture. We and our families are still living with the really big change from the late 1930s and early 1940s when government moved our families away from our country. This place, Wunambal Gaambera Country, is the only place in the world where we and our culture can be. This health check-up reminds us in a very clear way that we must not let our own Wanjina Wunggurr 'Cultural health' slip any further. We have to make our life on country and our culture stronger so that we Wunambal Gaambera people can make sure the health of the other key parts of country do not suffer. This will help make the overall health 'Good' (green) or 'Very good' (dark green).

'This table is good - in a quick way it shows what we need to focus on to keep our country healthy.'
Damien Lawford

Gavin Goonack fishing with spear at Banjal
Photo: Robert Warren

The main threats

Each target has some problems now or may have more in the future. We call these problems threats. We did some work to figure out what the main threats to Wunambal Gaambera Country are. The main threats are:

1. Loss of traditional knowledge
2. Not being secure on country
3. Bauxite mining
4. Climate change
5. Wrong way fire
6. Visitors not being respectful
7. Lack of land and sea management capacity
8. Weeds
9. Feral animals
10. Commercial fishing

Business and industry can also be a threat but it can also be an opportunity.

All these threats, or sometimes only one of these threats, can make our country not healthy. One threat can make another threat worse. For instance a visitor damaging one piece of rock art might not seem too serious because there is lots of rock art. But to us all rock art is important, it is our culture and history; that piece of rock art is culturally significant and part of a sacred site. If it is damaged in any way we may be punished by our ancestors because we did not look after the painting site properly; or the person who did the damage may be punished in some way. So it is damaging the targets of rock art and Wanjina and Wunggurr Law – our culture.

The threat ranks, 'Low' (green) to 'Very high' (red) in Table 2, are based on what we know when we wrote this plan. By getting rid of the threat, or making it less, the health of the targets and the overall health of Wunambal Gaambera Country might be better. Some threats can be easy and cheap to fix, while others may be harder and cost more.

Sometimes the thing that could be a threat might turn out to be a good thing if it is managed the right way. For instance some development could mean training, jobs and money for us to help look after our country. If a new business or industry idea comes along for our country, we will do a check to see if it is a threat to our targets. If the new business or idea is not a threat or is a 'Low' (green) threat we might go ahead with it. Some business or ideas might even help improve the health of our targets and then the overall health of our country, as shown in Table 1, might go from 'Fair' to 'Good'.

We have to make sure that all sides of the threats are looked at and managed properly.

Remains of turtle trapped in fishing net
Photo: Dhimurru Aboriginal Corporation

The main threats

Threats \ Targets	Wanjina and Wunggurr Law – our culture	Right way fire	Aamba and other meat foods	Wulo	Yawal	Bush plants	Rock art	Cultural places on islands	Fish and other seafoods	Mangguru and balguja	Overall threat rank
1 Loss of traditional knowledge	Very high	Medium	Medium	Medium	High	Medium	Low	Very high	Low	Low	Very high
2 Not being secure on country	Very high	Very high	Medium	Medium	High	Medium	High	High	Low	Low	Very high
3 Bauxite mining	Very high	Very high	High	Very high	High	High	Very high	Very high	Medium	High	Very high
4 Climate change	Low	Medium	High	High	Very high	Medium	Medium	Low	High	Very high	Very high
5 Wrong way fire	Very high	Medium	High	Medium	Medium	Medium	Low	Medium	-	Low	High
6 Visitors not being respectful	High	Low	Medium	Low	Medium	Medium	Very high	High	Medium	High	High
7 Lack of land and sea management capacity	High	Medium	Medium	Medium	Low	Medium	High	High	Medium	Low	High
8 Weeds	Low	Very high	Medium	Medium	Medium	Medium	Low	Low	-	Medium	High
9 Feral animals	Low	Low	Low	Medium	High	Medium	Low	Medium	High	High	High
10 Commercial fishing	High	-	-	-	-	-	Low	Low	High	High	High
Business and industry*	High	Medium	Low	Low	Medium	Low	Medium	Medium	High	High	High
Threat status for targets and Wunambal Gaambera Country	Very high	Very high	High	Very high	Very high	High	Very high	Very high	High	Very high	Very high

* = Business and industry that we know – like eco-tourism, pearling and airport logistics

Threat ranking explanation

Very high = The threat has the potential or is likely to destroy or remove all or part of the target, if the current situation or rate of damage continues. If this happens then it may not be possible to make the target healthy again.

High = The threat is likely to cause serious damage to all or part of the target, if the current situation or rate of damage continues. If this happens then it would be very expensive and difficult to make the target healthy.

Medium = The threat is likely to cause moderate damage to all or part of the target, if the current situation or rate of damage continues. If this happens then it would take a reasonable effort and amount of money to make the target healthy.

Low = The threat is likely to cause a small amount of damage to all or part of the target, if the current situation or rate of damage continues. If this happens it would not cost too much money and would be relatively easy to make the target healthy.

Table 2: Summary of main threats that we know of to Wunambal Gaambera Country

The main threats

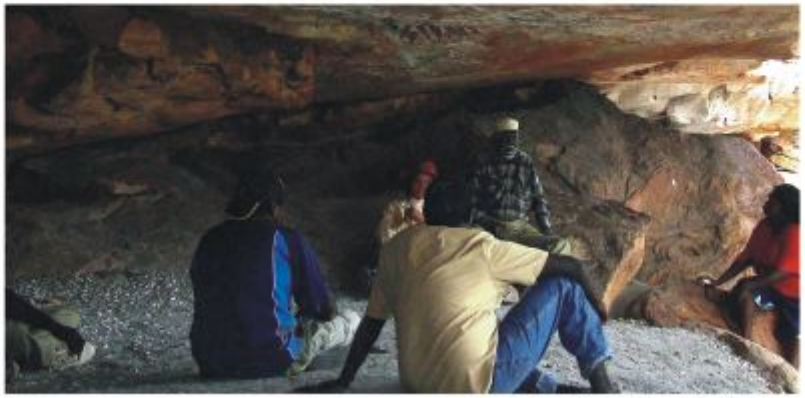
Threat 1: Loss of traditional knowledge

Wanjina Wunggurr Law and culture is unique to the Wanjina Wunggurr Community and only exists in country, covered by Wanjina Wunggurr Law (Wunambal Gaambera Country, Willinggin Country and Dambimangarri Country). Wanjina Wunggurr Law and culture has existed since the beginning of time. For us Wunambal Gaambera it is the Lalai. We have responsibility to keep our Law and culture strong and healthy for future generations.

One of the biggest threats to the health of Wunambal Gaambera Country is to break the chain (that goes back thousands of years) of handing down our knowledge of Wanjina Wunggurr Law and culture from one generation to the next. We sometimes get cranky with our children for not being interested in learning. But it is not their fault. Mums and dads, as well as grandparents, have a responsibility to pass on traditional knowledge. Most kids love learning about their traditions and culture, and spending time out on country. Many families do not yet have the means to get on their own graa (traditional part of country) with their children. The kids are not given the opportunities. If traditional knowledge about our country, our Law and responsibility and our Wanjina Wunggurr culture is lost, then we and our country are not healthy. Our sense of self is threatened.

'It wasn't their fault.' Esther Waina explaining how the old people were not allowed to use some of their culture when they were removed from their country.

Sylvester Mangolomara in traditional dance costume
Photo: WGAC



Passing on traditional knowledge in Brremagurey country
Photo: WGAC

Recording traditional knowledge at Garmbemirri for Plants and Animals Book
Photo: WGAC

The main threats

Threat 2: Not being secure on country

Our country, our culture and our families will be a lot healthier and more secure when our families are back living on and looking after their graa (traditional part of country). Our grandparents with us today were young when the government moved all Wunambal and Gaambera families from their graa, from where they had lived in their Uunguu for thousands of years. While all our families today visit and camp on country as much as they can, only the Kandiwal family on Ngauwudu (Mitchell Plateau) has been able to live on their graa.

'Living at Kandiwal ... is quiet, kids go to school ... still take them hunting, show them art sites, they can go teach other people, if they have kids can pass it on. More better than living in town ... got everything we need, more exercise, fishing, more walking, food.' Cathy Goonack describing life at Kandiwal.

We are waiting for determination (decision by the Federal Court) of our Uunguu native title claim which we made in 1999. Our native title claim shows government and everyone else that the land and saltwater of Wunambal Gaambera Country has been our living home, our Uunguu, for thousands of years. The determination will be our security and foundation to give us recognition and strength for our families to build their future lives on their graa like our grandparents enjoyed. The health check-up of the important things in our country – the targets – as shown in Table 1, gives us a strong reminder – living on country, our country is healthy.

'That's the only way to do it, living on country ... people living here makes this place stronger.' Basil Djanghara

Our country is one of the remotest parts of Australia. Our biggest need is to be secure on our country; for our population of some 400 people, to enjoy a modern healthy life, to fulfil our cultural obligations to our ancestors to look after our country, keep our culture, our languages, our Uunguu and our traditional knowledge healthy to pass to future generations. Being secure on country gives us the opportunity to make most of our country an Indigenous Protected Area (IPA) – like a national park – to look after and keep our Uunguu, our country, healthy.

The Healthy Country Healthy People study in Australia showed that there are significant health benefits for Indigenous traditional owners who spend more time on their country and caring for their country (Burgess *et al* 2009).

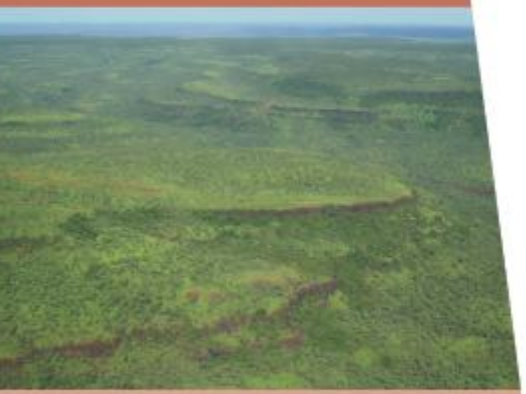
Punamii–Uunpuu (Mitchell Falls)
Photo: Ethnoecological Services

Kandiwal Community,
Ngauwudu country (Mitchell Plateau)
Photo: S. Irvine

The main threats

Threat 3: Bauxite mining

Cape Bougainville and Steep Head Island – laterite mining would flatten places like these.
Photo: WGAC



Bauxite laterite hills in Gaambera country
Photo: Ethnoecological Services

The Western Australian Government has given a joint venture consortium the rights to dig up bauxite on Ngauwudu (Mitchell Plateau) and Wargul Wargul (Bougainville Peninsula). Other companies are always looking around on islands and wunggayila (volcanic hills) for bauxite places to dig up. The exploration work on Ngauwudu shows that the seismic lines and holes made in the 1970s and early 1980s are still there and have not recovered.

We are not against new ideas for our country but this type of strip-mining could cause lots of damage. When this mining happens:

- all the plants, trees and top soil are taken off the mine area
- animals of the area don't have their homes anymore
- food and medicine plants are gone from that area
- dirty water from the mining can get into yawal (waterholes)
- wulo (rainforest) can be damaged or removed from the area
- important plants that grow on bauxite at Ngauwudu, like dangana (livistona palms), are removed and probably will not grow back
- our cultural sites in the area could be damaged or destroyed
- it is harder for us to visit the area and carry out our cultural responsibilities
- more weeds, feral animals and fires can happen because there are more roads, motorcars and people
- the mining area will never return to its natural state as our ancestors healthy country

Wargul Wargul (Bougainville Peninsula) laterite plateau would be flattened by bauxite mining
Photo: WGAC

The main threats

Threat 4: Climate change

No one really knows exactly how much climate change will affect our country. Our Lalai has told us already of what can happen. Our people know stories from when there were floods and rising levels of wundaagu (sea) in the past. Scientists say there will be more storms and cyclones, the wundaagu will rise, get warmer and currents change, and air temperature will rise. If these things happen there could be serious problems with some of our targets. The things that could happen are:

- more female baby mangguru (marine turtles) will be born than baby males
- less burrurrga (sandy beaches) for mangguru to nest
- damage to jala (seagrass) beds and less food for mangguru and balguja (dugong)
- loss of nesting and feeding areas for diigu (birds) of the wundaagu
- damage and loss of cultural places on islands and coastal areas
- changes to the type and number of fish
- more coral bleaching and death of coral in the warrurru (reefs)
- loss of darrngarla (mangroves)
- saltwater flooding coastal wetlands and getting into groundwater
- malgarra (hotter fires) and more fires caused by more lightning strikes

'Cyclone is started with a snake with a scaly body ... if you listen you can hear him grinding his teeth. That's what makes the wind blow hard and the rain starting.' Janet Oobagooma

Threat to Wuuyuruu cultural site from rising sea-level
Photo: WGAC

Nest of walan (white-bellied sea-eagle)
Photo: WGAC

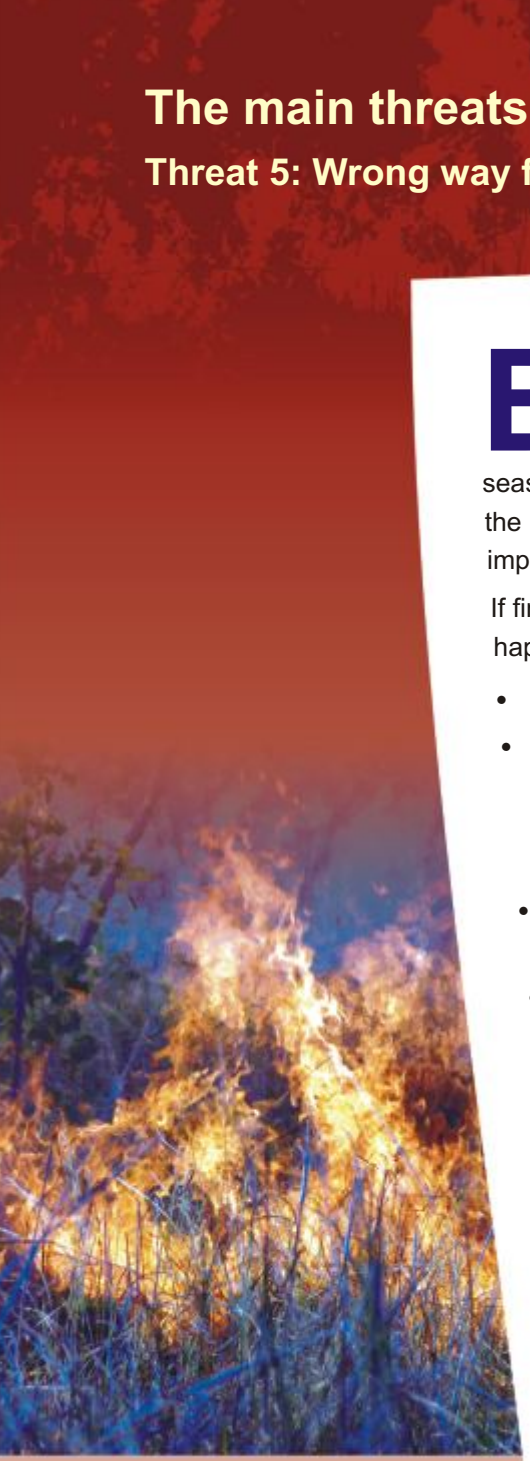
The main threats

Threat 5: Wrong way fire

Burning country the right way helps to keep country healthy. When country is not burnt early with lots of cool burns, then if a malgarra (wildfire) starts late in the dry season, it will be too hot and will burn large areas of country. When the flames are 'dancing mad' then the fire is too hot. So it is important to do burning the right way to look after country.

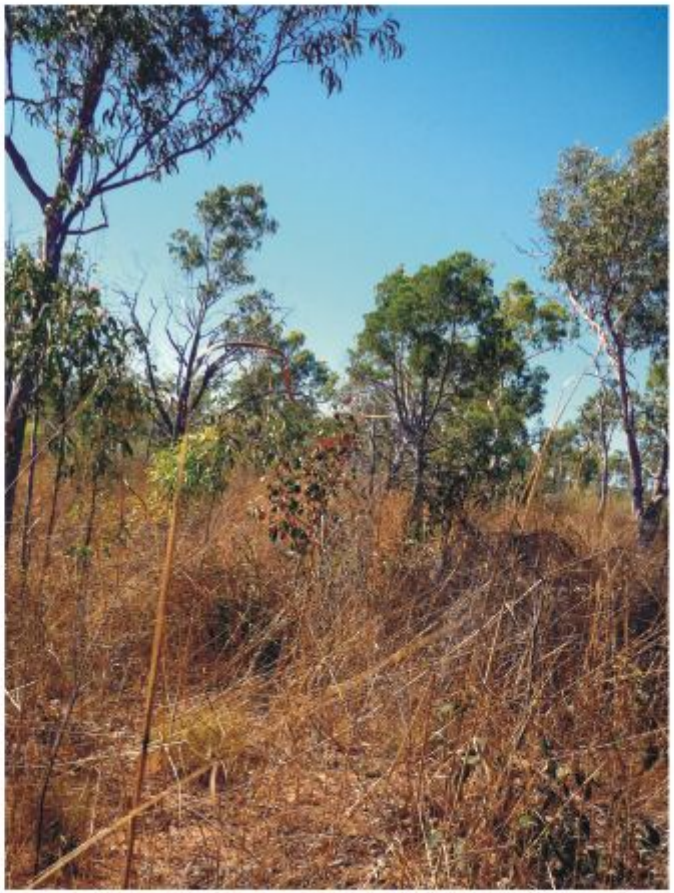
If fire is done the wrong way then the following things can happen:

- the area and number of wulo (rainforest) gets smaller
- the trees and grasses change in the country so there is less food for aamba (kangaroos and wallabies), jebarra (emu), diigu (birds) and gundun (bush mice) to eat
- some plants and trees such as guru (cypress pine) are killed or damaged
- animals that cannot move quickly or find a safe place such as gunanji (echidna, porcupine) and luu (snakes) get burnt and killed
- the homes, feeding and nesting places of some animals such as yilangal (scaly-tailed possum) and diigu (birds), such as the wirrirri (finches including gouldian finch), are burnt
- weeds spread easier and quicker
- rock art sites are damaged
- buildings, fences and other assets are destroyed



Malgarra – flames 'dancing mad' – hot burn
Photo: WGAC

'If country is not burned, the grass will be no good and the kangaroo will taste no good and will make you sick.'
Sylvester Mangolomara



Grass needs burning
Photo: Lyndall McLean

The main threats

Threat 6: Visitors not being respectful

Visitors in general, anyone who is not a Wunambal Gaambera person, are strangers. We do not know them, the country does not know them and our ancestors do not know them. Visitors can be tourists on holidays, people fishing for fun and also commercial fishing trawler crews, pearl farm workers, mining people, scientists, government people and many more. When people visit our country they need to have permission from the traditional owners to be on that graa (traditional part of country). They should respect Wunambal Gaambera Country, we traditional owners, and our Law, just like they would expect of a visitor to their house.

'If we go to other country we got to ask the owner of the place, tourists have to ask us too.' Raphael Karadada

Welcoming visitors to country
Photo: WGAC

We are happy for people to visit our country, share our knowledge, but it has to be done the right way. That's why we have put together the Uunguu Visitor Management Plan with the Uunguu Visitor Pass as a one stop permission system for visitors to travel to approved places in Wunambal Gaambera Country and have a learning and respectful experience.

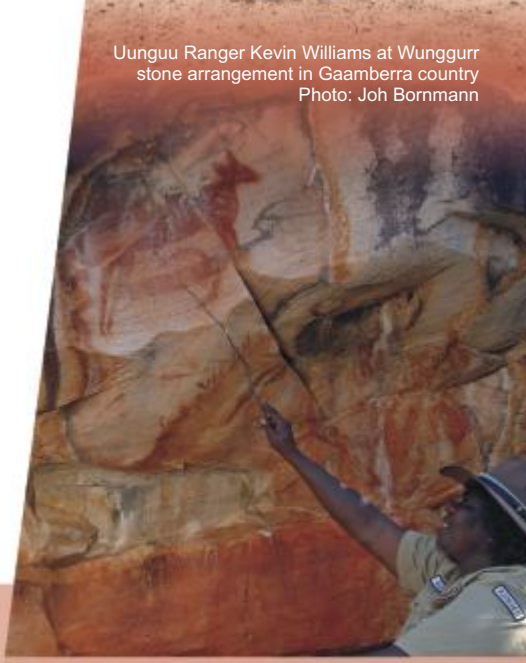
'Sharing knowledge of culture and country strengthens understanding between different peoples.'
Sylvester Mangolomara

Some things that visitors do that are disrespectful are:

- taking too much fish, particularly from certain areas
- trawling in certain warrurru (reefs)
- leaving rubbish in the wundaagu (sea), on burrurrga (sandy beaches) and on land
- taking photos where they shouldn't
- doing graffiti at rock art places
- visiting burial sites
- moving and removing stones and bones from burial sites
- going to sacred places without permission and without a traditional owner
- taking our knowledge and using it for themselves

'It comes down to a basic understanding.' Esther Waina talking about how some visitors to Wunambal Gaambera Country are not being respectful because of a lack of awareness and education.

Uunguu Ranger Kevin Williams at Wunggurr stone arrangement in Gaamberra country
Photo: Joh Bornmann

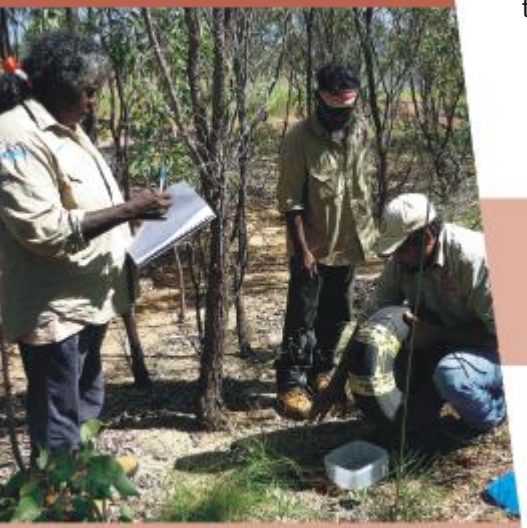


Uunguu Ranger Dorothy Djanghara at Garmbemirri tour site
Photo: WGAC

The main threats

Threat 7: Lack of land and sea management capacity

Uunguu rangers checking quality of Munurru waterhole
Photo: Robert Warren



Uunguu rangers conducting AQIS mosquito vector survey
Photo: Emma Ignjic

One of the main problems we have for looking after Wunambal Gaambera Country is that we don't have enough resources and training. When our ancestors were looking after country, there weren't all the pressures and government rules that we have today. There also weren't all the other people on our country or wanting to use our country in non-traditional ways and sometimes not being respectful.

We have to live in both worlds following our traditional Law as well as modern Australian law. Our Uunguu Land and Sea Management rangers have to be able to do lots of things. As well as being able to look after country in the traditional way, which they learn from elders, they need to look after country using Western ways. Rangers need to be able to guide visitors, work with scientists, do surveys to monitor for mangguru (marine turtles), balguja (dugong), monyjon (monjon), wulo (rainforest) and get more information to help look after the targets, use chemicals to get rid of weeds, go to meetings and speak government and industry talk, keep our rock art healthy, do feral animal control programs and do aerial burning.

'We're learning how to use it [cybertracker]*. We mainly use it for turtle and dugong ... once we get proper training can use it for more.'* Neil Waina explaining how rangers are learning about monitoring techniques.

Capacity is about training, resources and money. Our rangers need equipment and other resources to help them do the work. All these things cost money. Our rangers need the right training and certificates to do certain things. They have already done some training to help with our healthy country work. Looking after country programs like the Australian Government's Working on Country program helps with ranger resources.

Most of the problems that are happening on our country are not because of things we have done. We are responsible for our country and need to look after it. We need the capacity to fix or reduce the threats and keep our targets healthy. Without enough resources, the rangers' job to look after our country and keep it healthy will be much harder.

'We gotta keep climbing up so we don't fall down.'
Sylvester Mangolomara

Uunguu rangers at Garmbemirri
Photo: WGAC

The main threats

Threat 8: Weeds

Weeds are plants that do not belong to our country. Our country does not have a lot of weeds. There are a few weed species that grow along the roadsides like grader grass, which come in on motorcars and road machinery. However there are a number of weeds that occur in areas nearby, as well as in other regions of northern Australia, that could cause very serious problems if they got into Wunambal Gaambera Country. These weeds include: neem; gamba grass; mission grass; para grass; and rubber bush. These weeds are very hard to control.

'These weeds grow real quick.' Uunguu Ranger Dorothy Djanghara talking about how quickly the neem weed near Kalumburu has grown.

Some of the problems weeds could cause to our country are:

- clogging up the homes and places (habitats) of plants and animals that should be in our country
- plant and animals that should be here get sick and some types might die off and disappear
- changes to the right way fire with some weeds not drying off until late dry meaning hot late fires
- reducing the amount of burrurrga (sandy beaches) for mangguru (marine turtles) to nest
- making it hard to travel through country and collect food and medicine plants, go hunting and fishing
- making it hard for animals to move through country
- polluting and messing up yawal (waterholes)

Passionfruit weed on cycad,
Wargul Wargul (Bougainville Peninsula)
Photo: Tom Vigilante

Rubber bush
Photo: Lyndall McLean

The main threats

Threat 9: Feral animals

Feral animals do not belong to our country. Feral animals can cause lots of damage to Wunambal Gaambera Country. The main feral animals on our country are bulumana (cattle). Sometimes we kill these animals to feed our families. Some of our elders worked cattle stations when they were young, so some of these animals do have some importance to some Wunambal Gaambera people. Bujigat (feral cats) have been in our country a long time. Cane toads are likely to arrive during the life of this plan. There are small feral animals that could come in on illegal boats from overseas, such as crazy ants and foreign barnacles. There are even smaller feral animals like diseases and parasites that could come to our country with visitors or carried by larger feral animals.

Bujigat (feral cats) can kill small animals
Photo: Ian Morris

'We did beach surveys and saw a lot of Indonesian stuff off these boats. We took photos and burnt the stuff after checking to see if any worms and taking samples.' Uunguu Ranger Neil Waina explaining how the rangers did a survey with AQIS along the coastline to check for debris and feral animals from Illegal Foreign Fishing Vessels.

Cane toads are on their way to Wunambal Gaambera Country
Photo: Ian Morris

Some of the threats feral animals cause to our country now and in the future are:

- damaging wulo (rainforest) by hoofing up the ground and opening up areas for weeds
- polluting and muddying yawal (waterholes) with droppings and carcasses
- bringing and spreading weeds on their hooves
- bringing and spreading diseases that can cause dieback in some plants
- bringing diseases that can harm fish and seafoods such as marlinju (oysters)
- bringing and spreading parasites that can cause animals like aamba (kangaroos and wallabies) to get sick
- damaging rock art by rubbing against the paintings
- trampling some of our food and medicine plants
- competing with native animals for food and water
- killing and eating animals like wijingarri (northern quoll) which are special in our Dreaming stories
- killing and eating small meat foods like diigu (birds)
- poisoning and killing small meat foods like wobarda (water monitor) and wijingarri (northern quoll)
- disturbing cultural sites

Bulumana (feral cattle) can cause many problems on country
Photos: WGAC

The main threats

Threat 10: Commercial fishing

We like to catch fish as did our ancestors. When we go fishing we only go to certain areas, at certain times and only get enough for the family to eat straight away. However, there are different types of commercial fishing that happen in Wunambal Gaambera Country by aalmara (European people). We are worried the prawn trawling industry is not being checked enough and is a threat to our country. The Western Australian Department of Fisheries (Fisheries WA) issues eco-fishing tour licences to charter boats operating along the north Kimberley coast, including ones for our saltwater country. Fisheries WA also issue a small number of licenses for netting and near shore species. We need better consultation between Fisheries WA does and the Wunambal Gaambera people about these licenses and the effect of fishing on our traditional seafoods. We know that Indonesian fishing boats also get fish and other seafoods such as shark fin, bujulum (trepang) and clam meat from our warrurru (reefs).

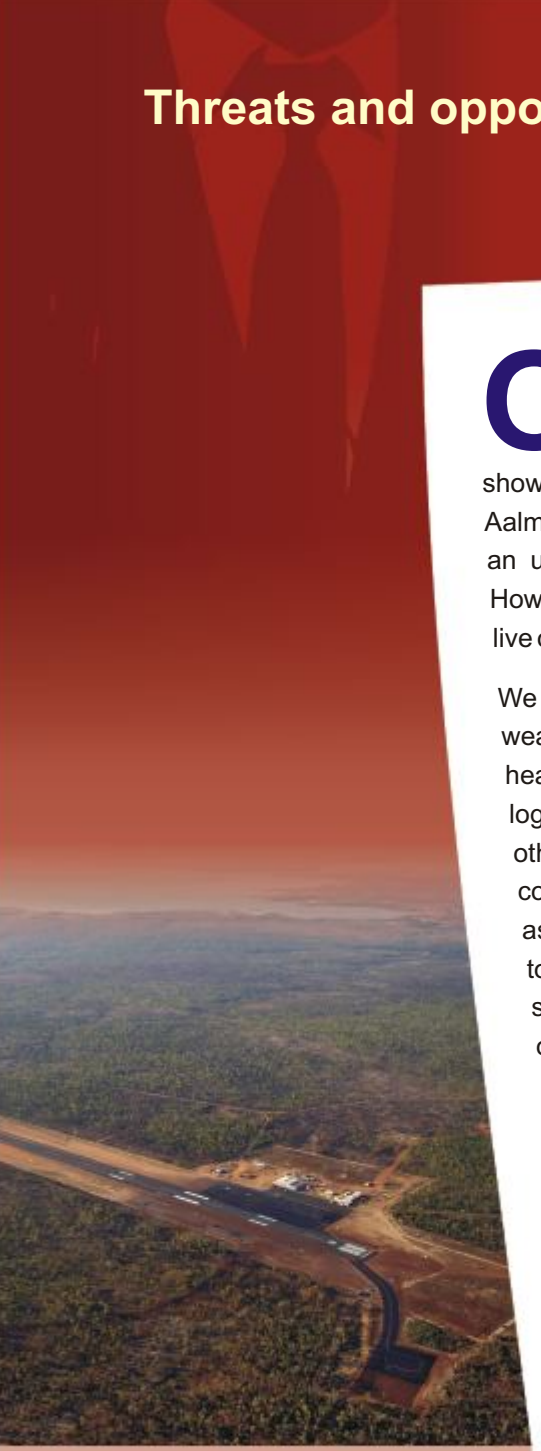
Some of the problems that commercial fishing can cause to Wunambal Gaambera Country are:

- taking too much fish or prawns, particularly from certain areas
- damaging warrurru, which are important for mangguru (marine turtles) and balguja (dugong)
- damaging Wunggurr places in wundaagu (sea) and on warrurru
- leaving rubbish like ghost nets and buoys which can hurt or kill animals if they eat it, or make it hard for mangguru to nest
- catching fish and other animals like mangguru in the nets (by-catch)
- polluting the wundaagu, warrurru and burrurrga (sandy beaches) with oil spills, bilge water and other waste

Fishing trawler
Photo: Dhimurru Aboriginal Corporation

Drifting ghost nets
Photo: Dhimurru Aboriginal Corporation

Threats and opportunities: Business and industry



Mungalalu-Truscott Airfield
Photo: WGAC

Our country is one of the few places in Australia today where every type of plant and animal that should be here, is still here. Our healthy country check-up (Table 1) shows our landscapes and our plants and animals are healthy. Aalmara (European people) often call our country a 'wilderness' – an unchanged nature place – that should be kept that way. However, this special part of Australia is our home and asset to live off and to support our families into the future.

We need business on our country that helps us to build our wealth, make our families stronger and to keep our country healthy. Present industries are pearling, tourism and resource logistics. We need businesses – our own or in partnership with others - that brings us long term opportunities like jobs, contracts, training, good careers, rents and infrastructure such as roads, wharves, airports, power, water and camps. We need to look at business ideas that will be good for our people, support our living on country but do not damage the health of our country.

High value–low impact business, like nature-culture tourism managed right, is one way to go forward. Many places in the world run nature-culture tourism to help traditional owners live on and look after their country. Liquid natural gas (LNG) processing might be another industry to look at. It is a high value industry that needs a small area of land to process gas piped from off-shore seabeds, but it can have some risks. Burning country right way seems to be a business that fits with healthy country. We have already talked about bauxite - bauxite will damage our country.

To help us look at the best business ideas, we need business impact decision tools to go with this Healthy Country Plan. These tools can show us which business ideas would be consistent with our vision for a healthy country. The tools will help us look at opportunity and risk issues and test whether our decisions help Wunambal Gaambera people and Country. It is also important to us that our decisions are respected and accepted by other stakeholders.

If business is not considered or done properly, Wunambal Gaambera people and Wunambal Gaambera Country could face problems like:

- our Uunguu – plants, animals, cultural sites – damaged, lost or not respected
- our beautiful scenery, landscapes and seascapes damaged or changed
- decisions about Wunambal Gaambera Country not being made by traditional owners
- opportunity and capacity to live on and access country being lost, delayed or restricted

Pearl farm, Gaambera country
Photo: WGAC

Keeping the targets healthy and fixing the threats

Our objectives

To reach our vision we need to keep the targets healthy and fix or lessen the threats. To help us to do this we put objectives for what we want to achieve by the year 2020. By having objectives it is easier to stay on track for reaching the vision.

By achieving our objectives we want to improve the overall health of Wunambal Gaambera Country from 'Fair' to 'Very good'.

Most important objectives

1. By 2012 the old peoples' traditional knowledge on plants, animals, our country and how these relate to each other, will be recorded, saved and made accessible to Wunambal Gaambera people, especially the young people.

2. By 2020 our country will still be healthy with no plants, animals, fish or diigu (birds) or their habitats that are here today, being lost.

Other objectives

3. By 2014 we will be looking after ten important cultural sites according to Wanjina Wunggurr Law, and by 2020 all culturally important sites will be looked after in this way.

4. By 2014 we will be managing visitors to Wunambal Gaambera Country and promoting respect for our country in accordance with Wanjina Wunggurr Law.

5. By 2015 we will be running an ongoing Wanjina Wunggurr cultural education program for Wunambal Gaambera people.

6. By 2015 five Wunambal Gaambera families will have the opportunity to live and/or visit their traditional country and by 2020 all families will have this opportunity.

7. By 2015 ten Uunguu Land and Sea Management rangers will have the capacity to look after our country using traditional and Western knowledge, and by 2020 the ranger service will be managed by a Wunambal Gaambera person.

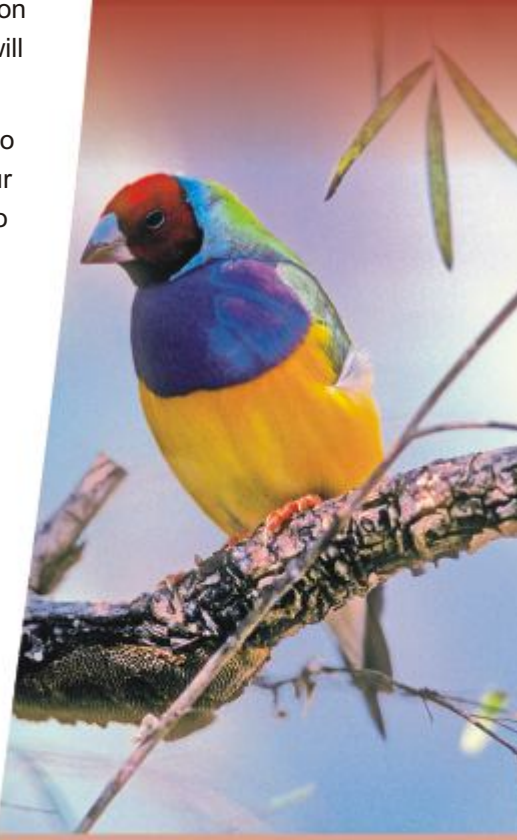
8. By 2015 we will be managing fire on Wunambal Gaambera Country.

9. By 2015 we will be managing and controlling pest species on Wunambal Gaambera Country and by 2020 pest species will have a smaller impact.

10. By 2015 we will have figured out and started using ways to reduce the problems that climate change might have on our targets, us and Wunambal Gaambera Country, and ways to make sure our actions don't make the carbon problem worse.

11. By 2020 Uunguu Land and Sea Management Limited will have sustainable financial capacity to manage healthy country.

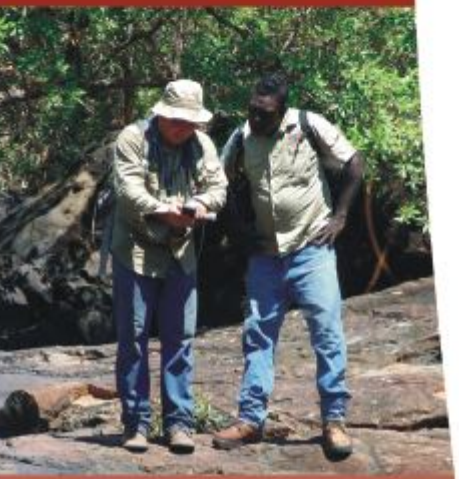
Healthy country – Wargul Wargul (Bougainville Peninsula)
Photo:Tom Vigilante



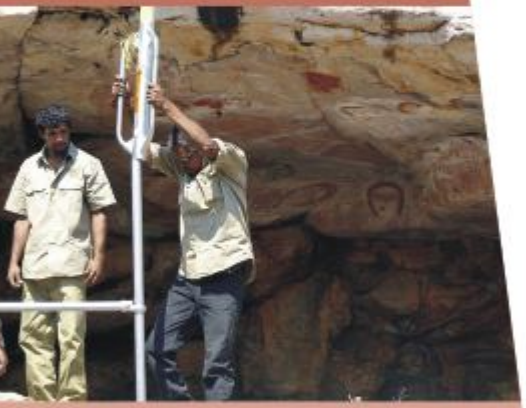
Many wirrirri (finches including the gouldian finch) occur in Wunambal Gaambera Country
Photo: Ian Morris

Keeping the targets healthy and fixing the threats

Our strategies



Uunguu Ranger Justin Djanghara and Ecologist Hugh Pringle (BHA) collecting data on ecological field trip to Wargul Wargul (Bougainville Peninsula)
Photo: Tom Vigilante



Building barrier fence at Jalandal to protect rock art from bulumana (feral cattle)
Photo: WGAC

We have a series of strategies that we will use to help us achieve our objectives. The strategies outline how we are going to keep the targets healthy or fix the threats. Some strategies are about one target or one threat. Other strategies are about more than one target or threat. There are four themes to the strategies: healthy country management, Law and culture, operational capacity and financial management.

Healthy country management strategies

1. Continue and expand the fire management program with annual burns and by 2012 complete the Uunguu Fire Management Plan consistent with carbon abatement opportunities. (Helps achieve objectives 2, 3, 8 and 10).

2. Continue weed and feral animal control programs in high use areas (roadsides, Ngauwudu, Wuuyuruu, Anjo Peninsula, Wargul Wargul and coastal zone), each year on a priority basis, survey for weeds and feral animals in other areas to identify any new or threatening invasions and control as required. (Helps achieve objectives 2 and 9).

3. By mid 2012 identify the management requirements for conservation of our significant plants, animals, cultural and ecological communities (nested targets) – and incorporate these requirements into the implementation of healthy country actions and work programs. (Helps achieve objective 2, 9 and 10).

4. In 2010 raise awareness of stakeholders and the general public of the Healthy Country Plan. (Helps achieve objectives 4 and 11).

5. By 2011 manage tourism on Wunambal Gaambera Country through the implementation of the Uunguu Visitor Management Plan. (Helps achieve objectives 3 and 4).

6. By mid 2012 adopt and implement a policy to support Wunambal Gaambera families who have the means to visit and/or live in a sustainable way on their country. (Helps achieve objective 6).

7. By 2012 adopt a planning and decision making process to assess and approve proposed activities and actions (future acts) that could improve or affect the health of Wunambal Gaambera Country. (Helps achieve objectives 2 and 11).

8. By 2012 acquire an information management system for the storage and accessing of cultural and natural data. (Helps achieve objectives 1 and 7).

9. By 2012 adopt a monitoring and evaluation program that sets standards and benchmarks for keeping our Uunguu healthy and to help guide actions and decisions about managing country. (Helps achieve objectives 2, 3, 4, 6, 8, 9 and 10).

10. By 2013 install basic seasonal accommodation for at least two rangers to be based at strategic locations (Garmbemirri, Ngauwudu and Wuuyuruu) for each dry season to undertake healthy country work. (Helps achieve objectives 6 and 7).

Keeping the targets healthy and fixing the threats

Our strategies

Law and culture strategies

11. By end of 2010 run a cultural site recording and maintenance program. (Helps achieve objectives 3, 4 and 5).

12. By 2012 record and preserve Wunambal Gaambera elders' cultural knowledge. (Helps achieve objectives 1, 3, 5 and 7).

13. By 2013 prepare an Uunguu cultural education program based on lifelong learning of traditional knowledge. (Helps achieve objectives 1, 3 and 5).

Operational capacity strategies

14. By mid 2011 complete and implement an Uunguu workforce development plan to support and foster working-age Wunambal Gaambera people in jobs and earn incomes to live on country. (Helps achieve objectives 6, 7 and 11).

15. By 2012 identify the career pathway for a Wunambal Gaambera Healthy Country Manager by 2020. (Helps achieve objective 7).

16. Use a Waters Agreement [an Indigenous Land Use Agreement (ILUA)] to be completed by end of 2012 to manage, with ILUA partners, a healthy Wunambal Gaambera Saltwater Country for its cultural, natural and industry values consistent with Indigenous Protected Area objectives. (Helps achieve objectives 3, 4 and 9).

17. By mid 2013 complete a staged declaration of Wunambal Gaambera Country as an Indigenous Protected Area (IPA) to be managed consistent with the World Conservation Union's Protected Area Category VI - Managed Resource Protected Area. (Helps achieve objectives 2 and 11).

18. By 2014 train the majority of Uunguu rangers to Certificate 3 in Conservation and Land Management. (Helps achieve objective 7).

Financial management strategies

19. Continue to build and maintain partnerships with relevant organisations and groups that will assist in implementing our Healthy Country Plan. (Helps achieve objective 11).

20. From 2010 – 2020 secure from the public and private sectors the annual operating funds, which are not generated from our own sources, needed to implement our Healthy Country Plan. (Helps achieve objectives 2 and 11).

21. From 2010 – 2020 develop new enterprises and self generating income sources which can contribute to both operating and endowment funds to implement our Healthy Country Plan. (Helps achieve objectives 2 and 11).

22. By 2017 build a healthy country endowment fund sufficient to cover core operating costs of implementing our Healthy Country Plan. (Helps achieve objectives 2 and 11).

Sylvester Mangolomara conducting smoking ceremony for visitors leaving country
Photo: Kim Akerman

For each strategy there are steps or actions that need to be done. We have put these actions into a separate book called the Wunambal Gaambera Healthy Country Action Plan. Uunguu Land and Sea Management directors, staff and rangers will use the Action Plan to guide and direct day to day healthy country work and the work which will take longer to do. The Action Plan shows what work needs to be done when, how it is going to be done and who is going to do it. It also says how much it is going to cost to do the work. The Action Plan is checked and updated each year.

'Working on own country, see different things, learn more things and get to go to other country and meet other people ... always learning.' Uunguu Ranger Neil Waina talking about being a ranger with Uunguu Land and Sea Management Unit.

'Gotta get used to wearing these bloody boots!' Uunguu Ranger Dorothy Djanghara commenting on the requirement to wear safety boots to work.

The way that Wunambal Gaambera corporations and work teams will be set up to do the work in the Wunambal Gaambera Healthy Country Plan is shown in Figure 4 below.

Uunguu Rangers Sylvester Mangolomara and Raphael Karadada doing bulunggurrngei (freshwater turtle) survey with Ecologist Dr Tom Vigilante
Photo: Robert Warren

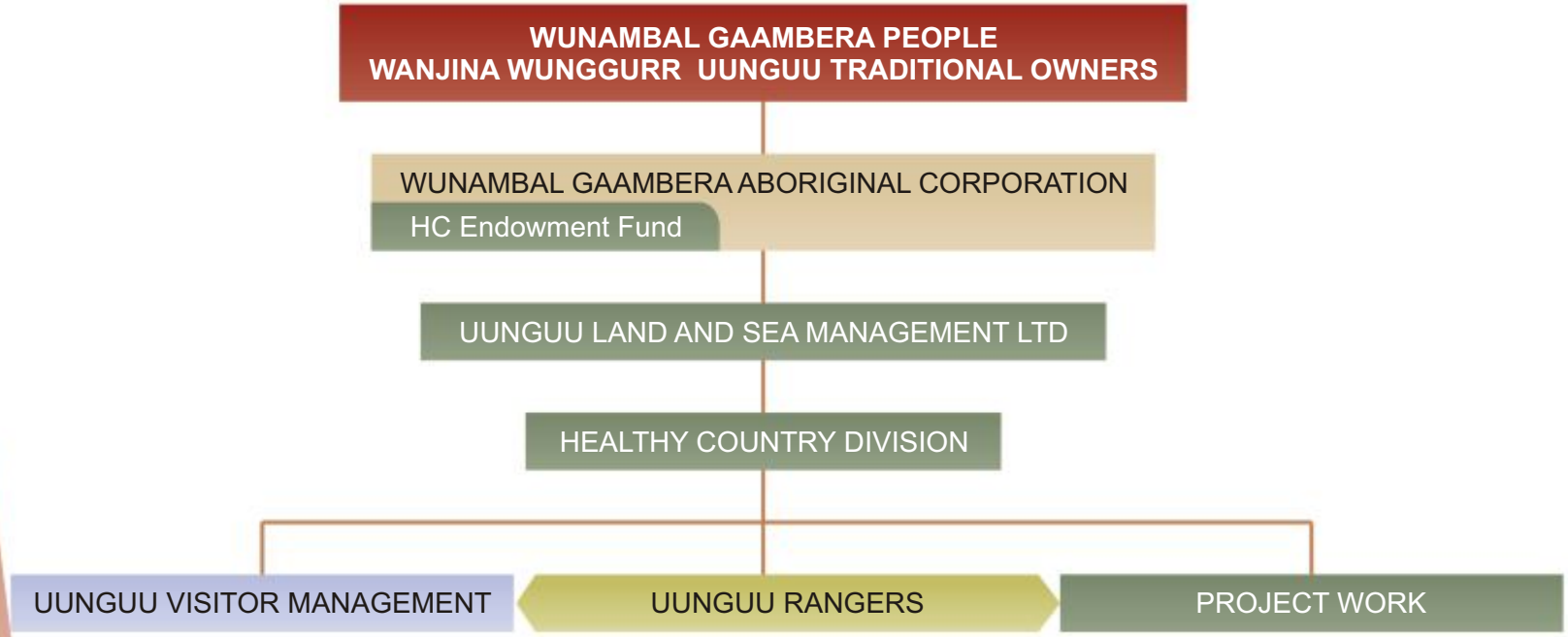


Figure 4: Healthy Country Project Structure

Keeping the targets healthy and fixing the threats

Our monitoring program

It is important to check that the strategies and the work in the Action Plan is on track to achieve our objectives and the vision. We need to keep measuring how we are doing and collecting information to check that the targets are staying healthy or getting healthier, that we are fixing and reducing the threats or they are not getting worse. One of the strategies in this plan is to put together a research and monitoring program. The monitoring part of the program will be based on indicators shown here.

Indicators for checking cultural responsibilities

- amount of cultural knowledge being maintained and passed on
- amount of traditional ecological knowledge being maintained and passed on
- amount of Wunambal and Gaambera languages used and spoken
- amount of time spent on country
- amount of traditional Law and culture used to guide management
- number of family groups living on or having the opportunity to live on country
- who is carrying out the burning
- who makes decisions about burning
- number of assets damaged by fire
- number of damaged cultural sites
- number of maintenance visits to significant sites by traditional owners and/or rangers
- number of visits to cultural sites in culturally appropriate way
- visibility and clarity of paintings

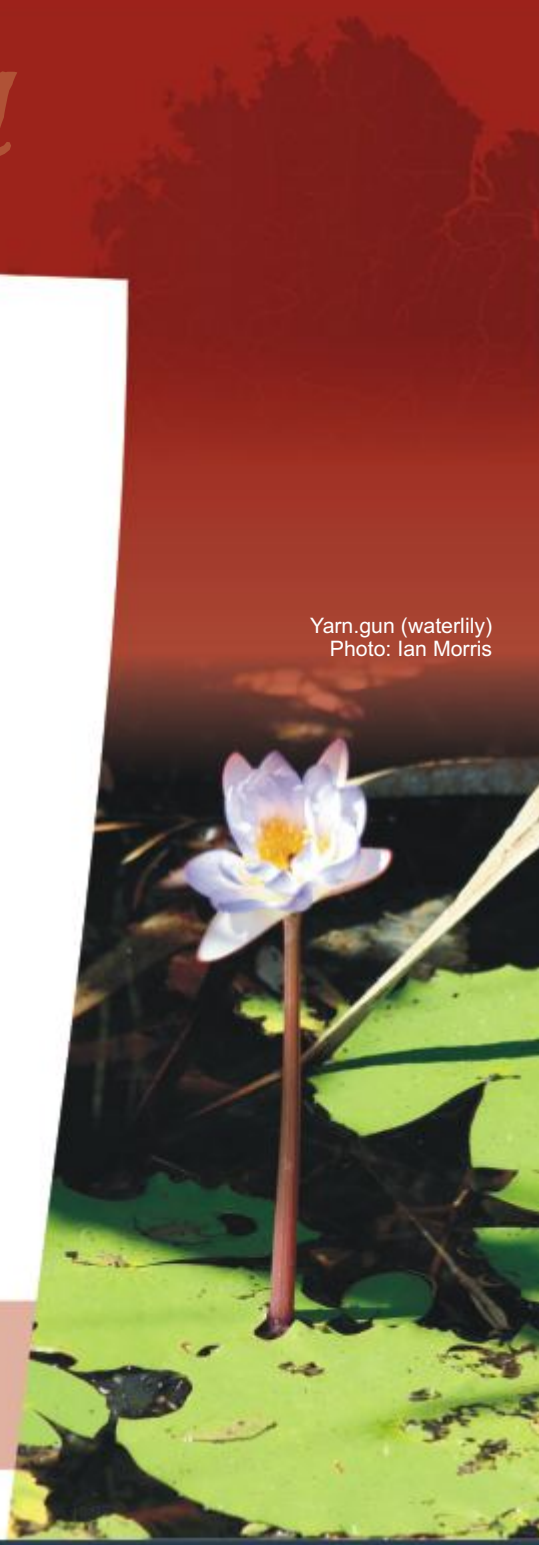
Indicators for checking habitats and species

- amount of country that is subject to mosaic burning
- amount of viable habitat
- number of hectares burnt
- species abundance and distribution
- keystone and significant species distribution and abundance
- extent and range
- species diversity
- amount of damage
- water quality
- riparian zone condition
- presence of young balguja (dugong) at right season
- viability of eggs and gender of young mangguru (marine turtles)
- amount of marine debris

Indicators for checking availability and taste

- amount of fat in right places of large meat foods
- taste of animal
- availability of animals and plants to hunt or collect
- effort used to get hunt or collect animals and plants

'We are checking for mosquitoes, weeds, fire, trapping for small animals.' Uunguu Ranger Desmond Williams describing some of the monitoring work being done.



Yarn.gun (waterlily)
Photo: Ian Morris

Keeping the targets healthy and fixing the threats

Adapting the plan

We know that things change over time. Our ancestors had to adapt their lives to different weather conditions. Our elders had to adapt to being moved off their country and living Western ways. We and our future generations need to keep adapting to the many changes that happen in our lives, and to country. There will be changes to the weather, to government rules and programs and changes to business and industry ideas. There could be new threats to our country that we don't know about yet. There may also be new ways of doing things to help look after country better.

As part of the work in this Healthy Country Plan, we will be getting lots of information from research and monitoring. We will use this information to help us keep the Healthy Country Plan on track to reach our vision. We will regularly review this plan to see if everything in it is still right to help us look after and care for our living home, our Uunguu.

Preparing for yawal (waterhole) survey

Aerial fire team with DEC rangers

Mangguru (marine turtle) monitoring

Uunguu ranger activities
All photos: WGAC

Checking art site

Fieldwork in wulo (rainforest)

Healthy Country planning workshop

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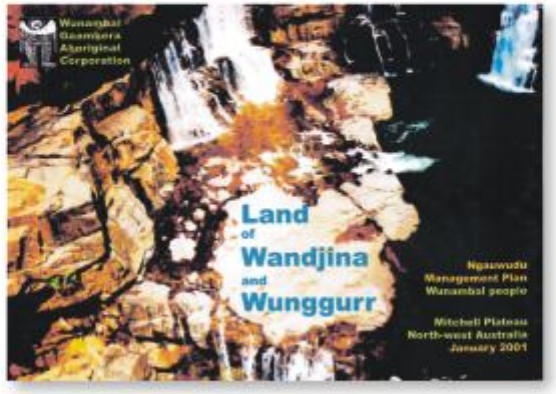
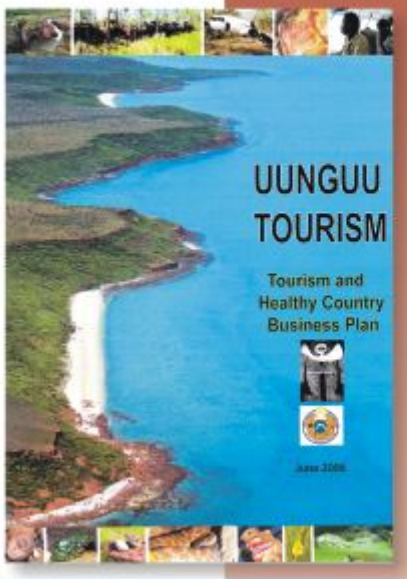




Appendix 1: Pronunciation guide for Wunambal words

This plan uses Wunambal language words for people, places, animals and plants. The orthography used for writing Wunambal words is outlined in the Wunambal Gaambera Healthy Country Resource Book. A brief guide to pronunciation is found below.

a	like the u in but
e	like the e in pet
i	like the i in pit, and the ee in feet
I	like the i in pit when spoken by a New Zealander
o	like the o in pot or the or in port
u	like the u in put
aa	like the a in father
ee	like the ai in air
ii	like the ea in easily
uu	like the oo in pool
b	similar to the p in spin, or the b in big
d	similar to the t in stun, or the d of dog
g	similar to the k of skite, or the g of goat
j	similar to the j of jam
l	similar to the l of lock
m	as in meat
n	as in nut
r	as in red and orange
w	usually pronounced like w of wait
y	usually pronounced like y of yellow
ly	like the lli of million, not the ly in happily
ng	similar to the ng of sing, but not like the ng of finger
ny	similar to ni of onion, but not like ny in many
rd	like the rd sound when an American English speaker says card, but the tongue curls back a little morerl like the rl sound when an American English speaker says girl or curl
rn	like the rn when an American English speaker says barn
rr	similar to the tt of butter when spoken quickly, or may be rolled like Scottish English spoken quickly, or may be rolled like Scottish English
.	full stop used to separate the sound n from g as in the word sunglasses – an example is gun.gurru (cycad)

Source: Bunjuck *et al* (2008)

Checking language for this plan
Photo: WGAC

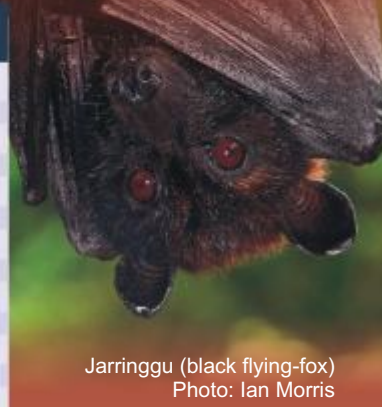
Appendix 2: Glossary of Wunambal words

Below is a glossary of Wunambal words used in this plan. Where there are two alternatives for the same word, only one is included in the text. This glossary does not include place names or proper nouns such as specific Wanjina or Wunggurr creation beings.

Wunambal word	Alternative Wunambal word	English
aalmara		European people
amalarr		black bream
aamba		kangaroos and wallabies
aanuu		water chestnut
amiya		marine turtle eggs
anjuwarr		stingrays
arn.gurru		woollybutt
baagi	baguny	short-eared rock-wallaby
balguja		dugong
balngga	bolnggo	saltwater crocodile
barnarr		bush turkey, bustard
barrurru	yalmin	stringybark tree
bayalu		blue-spotted stingray
bujigat	biji	feral cat
bujulum		trepang
bulumana		cattle
bulunggurrngei		freshwater turtle
bund/larri		golden bandicoot (mainland)
bunjumarru		mud-crab
burrurrga	jarrgany	sandy beaches
daagu		deep sea
dalal		wren
danbuu		freshwater mangrove
dang.gai		paperbark – *M. argentea*
dangana		livistona palm
darrngarla		mangroves
diigu		birds
gaadai		white lips
gaawi		freshwater fish
gangala	gudilawu	orange-footed scrub-fowl
garndula		plains goanna
garnmarngu		long yam
garrimarl		terns
gonjarra		long-necked turtle
goya		freshwater crocodile
graa	Guraa/giraa	traditional part of country

Wunambal word	Alternative Wunambal word	English
gudbingarri		cheeky mangrove worm
gulangi		black plum
gulay	murriya	green plum
gun.gurru		cycad sp.
gunanji	jugurruba	echidna, porcupine
gunggunya		march fly
gunu		round yam
gunwa	gunuwa, yalawalu	sharks
gurnduli		agile wallaby
guru		cypress pine
jala		seagrass
jarringgu	miniwarra	black flying-fox
jebarra		emu
jiliwa	ganjirr	river fig
juluwarru	ganmulu	green turtle
julwun		euro
jurul		emerald dove
laarru		freshwater mussel
lalai		Dreaming/Creation time
langanda		bush almond
luu		snakes
luulun		bush mouse
malngarnee		tidal creek
maa		Leichhardt tree
mandamanda		rose-crowned fruit-dove
mangarra		northern nailtail wallaby
mangguru	manggurul	marine turtles
manggurungay	manggurungarri	marine turtle hunter
malgarra		wildfire
marjal		canegrass
marlinju		oyster
marralu		freshwater prawn
marrnga	nyingal*irr*	Brahminy Kite
m/rrgalu	m/rlaali	sweet mangrove worm
monyjon	marluwel	monjon, nabarlek
moree		savanna woodland

Wunambal word	Alternative Wunambal word	English
munumba		snub-fin dolphin
munungjyunga		barramundi
muyun	yilarra	base of kangaroo tail
ngulugngee		magpie goose
ngaliwan	wanambanangarri	Tasmanian tiger
ngarli	ngarriwan	paperbark – *M. leucadendra*
ngarrwan		saddletail/mangrove snapper
ngarrwar		periwinkles
nyulbu		Torres Strait pigeon
rambarr	rambad	avoidance relationship
walamba		antilopine kangaroo
walan	madangana	white bellied sea eagle
warrgarli		wattle
warrurru	warrur	reefs
wijingarri		northern quoll
wirrirri		finch
wobarda		water monitor
wul/ji		whale
wuljari	garraga	emu bush
wulo		rainforest
wumalawa		rock cod
wumanggarr		sandstone and sandplains
wunan		traditional sharing and business
wunbarlu		blue-bone groper
wundaagu	wudaaga	sea
wundarla		bombax tree
wunggayila		volcanic hills
wunggangbarn	jari	golden-backed tree-rat
wunggurrwunggurr		earthworm
yabuli		land snail
yadarra	nyaliga	sand goanna
yarla		kapok bush
yam.gun	miyani	waterlily
yilangal		scaly-tailed possum
yinari		bird eggs
yingarl		dolphin
yuguru		queenfish



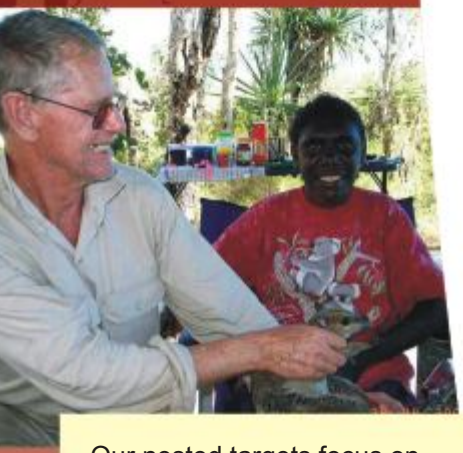
Jarringgu (black flying-fox)
Photo: Ian Morris

Walan (white-bellied sea-eagle)
Photo: Ian Morris

Recording and teaching of Wunambal language is a priority of our Healthy Country Plan. This work may change spelling or pronunciation slightly from those presented above.

Appendix 3: Nested targets

Uunguu



Scientist Andrew Burbidge and Uunguu Ranger Sylvia Djangharra with monyjon on Wuuyuruu (Bigge Island) survey
Photo: David Pearson, DEC

Our nested targets focus on things that are of specific cultural importance and of national or international conservation significance, as listed under the *Environment Protection and Biodiversity Conservation Act 1999*. Under Strategy 3 we will be focussing our work to keep these significant and important things healthy.

Significance and importance of nested targets	Plants, animals, cultural knowledge, ecological communities
Target 1: Wanjina Wunggurr Law – our culture	
Cultural identity	language
	traditional knowledge
	traditional ecological knowledge
Cultural identity and cultural resources	cultural places
	Uunguu
Cultural and spatial identity	graa (traditional part of country)
Nomination of national heritage listing for natural and cultural values	cultural values and diversity
Target 2: Right way fire	
Cultural resource, endemic species, threatened species	aamba (kangaroos and wallabies)
Cultural resource	gulay (green plum, *Buchanania obovata*)
Cultural resource, endemic species	gun.gurru (*Cycas basaltica* and *C. lane-pooleii*)
Cultural identity	graa (traditional part of country)
Endemic species	dalal (wrens including black grasswren, *Amytornis housei*)
	guru (cypress pine, *Callitris intratropica*)
	yilangal (scaly-tailed possum, *Wyulda squamicaidata*)
Key habitat for cultural resources	moree (savanna woodland)
	Ngauwudu (Mitchell Plateau)
	wulo (rainforest)
Endangered species	wijingarri (northen quoll, *Dasyurus hallucatus*)
	wirrirri (finches including gouldian finch, *Erythrura gouldiae*)
Vulnerable species, migratory species	northern shrike-tit *(Falcunculus frontatus whitei)*
	western partridge pigeon *(Geophaps smithii blaauwi)*
Vulnerable species	brush-tailed rabbit rat *(Conilurus penicillatus)*
	butler's dunnart (*Sminthopsis butleri)*
	masked owl (northern) *(Tyto novaehollandiae kimberli)*
	red goshawk *(Erythrotriorchis radiatus)*
Target 3: Aamba (kangaroos and wallabies) and other meat foods	
Key habitat for cultural resources	moree (savanna woodland)
	wumanggarr (sandstone and sand plains)
	wunggayila (volcanic hills)
Smallest rock-wallaby in world, endemic species	monyjon (monjon, *Petrogale burbidgei*)
Cultural resource	julwun (euro, *Macropus robustus*)
	mangarra (northern nailtail wallaby, *Onychogalea unguifera*)
	baagi (short-eared rock-wallaby, *Petrogale brachyotis*)
	walamba (antilopine kangaroo, *Macropus antilopinus*)
	gurnduli (agile wallaby, *Macropus agilis*)
	jebarra (emu, *Dromaius novaehollandiae*)
	yadarra (sand goanna, *Varanus gouldii*)
	garndula (plains goanna, *Varanus panoptes*)
	barnarr (bush turkey, *Ardeotis australis*)
Mammal diversity	Six endemic species, no known extinctions of small or medium sized mammals

Appendix 3: Nested targets

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Significance and importance of nested targets	Plants, animals, cultural knowledge, ecological communities
Target 4: Wulo (rainforest)	
Largest combined area of wulo (rainforest) in Kimberley, free of ungulates	Wargul Wargul (Bougainville Peninsula)
Cultural resource	gunu (round yam, *Dioscorea bulbifera*)
	garnmarngu (long yam, *Dioscorea transversa*)
	gulangi (black plum, *Vitex acuminate*)
	jarringgu (black flying-fox, *Pteropus alecto*)
	nyulbu (Torres Strait pigeon, *Ducula mulleri*)
	gangala (orange-footed scrub-fowl, *Megapodius reinwardt*)
	mandamanda (rose-crowned fruit-dove, *Ptilinopus regina*)
	jurul (emerald dove, *Chalcophaps indica*)
Endemic species	rough-scaled python (*Morelia carinata*)
	hibiscus species
Endemic species and genera	yabuli (land snails, camaenids)
Vulnerable species	wunggurrwunggurr (earthworms)
	bund/larri (golden bandicoot - mainland, *Isoodon auratus auratus*)
	wunggangbarn (golden-backed tree-rat, *Mesembriomys macrurus*)
Target 5: Yawal (waterholes)	
Cultural significance, cultural identity, cultural resource	Wanjina and Wunggurr places, including Punamii-Uunpuu
Wetland of national significance/wild river	Prince Regent River System, WA064, Mitchell River System WA063
Wild river, Register of National Estate – natural	Mitchell River, Mitchell–Lawley River Region, ID 17248, Prince Regent Area, ID 10172
Wetland of national significance, key habitat for two species of endemic frog	Nguyarri (Airport Swamp)
Wetland of national significance	Glauert's Lagoon
Ecosystems at risk	riparian vegetation
Cultural significance, regional centres of fish diversity	perennial streams and rivers with waterfalls (50 fish species, 20% endemic species)
10 endemic species	frog diversity
Vulnerable species	yarnda (freshwater sawfish, *Pristis microdon*)
	dalal (wrens including purple-crowned fairy-wren (western), *Malurus coronatus*)
Marine species	goya (freshwater crocodile, *Crocodylus johnstoni*)
	bulunggurrngie (freshwater turtle)
Target 6: Bush plants	
Plant diversity	high diversity with 1627 known plant species, 102 endemic species
Endemic species, cultural resources	gun.gurru (*Cycas basaltica* and *C. lane-pooleii*)
Endemic species	livistona *sp.*
Target 7: Rock art	
Cultural significance, cultural identity	Wanjina and Wunggurr places
Cultural values and diversity	Nomination of national heritage listing for natural and cultural values
Target 8: Cultural places on islands	
Cultural significance, cultural identity, cultural resources	Wanjina and Wunggurr places
Important refuges for species subject to threatening processes,	off-shore islands, seabird rookeries, key habitat for marine and migratory species such as crested tern (*Thaasseus bergii*), lesser crested tern (*Sterna bengalensis*), bridled tern (*Onychoprion anaethetus*), brown booby (*Sula leucogaster*), osprey (*Pandion cristatus*)
Seabird refuge – Register of National Estate	Low Rocks, WA ID10184

Yilangal (scaly-tailed possum)
Photos: David Pearson, DEC

Species and places of national conservation significance in Wunambal Gaambera Country

Register of the National Estate listing – 3

Nationally Important Wetlands listing – 2

Endemic species – 16 fish, 10 frogs, 31 reptiles, 2 birds, 6 mammals and 102 plants

26 threatened species, 41 migratory species, 73 listed marine species, 12 cetaceans that occur or are likely to occur in or on Wunambal Gaambera Country

Appendix 3: Nested targets

Wijngarri (northern quoll)
Photo: David Pearson, DEC

Mulga snake (king brown)
Photo: David Pearson, DEC

Significance and importance of nested targets	Plants, animals, cultural knowledge, ecological communities
Target 9: Fish and other seafoods	
internationally distinct coral province	north-western Western Australia coral beds
marine species, migratory species	balngga (saltwater crocodile, *Crocodylus porosus*)
endangered species	northern river shark *(Glyphis garricki)*
critically endangered species	speartooth shark *(Glyphis glyphis)*
cultural significance, key habitat for cultural resources	burrurrga (sandy beaches)
	warrurru (reefs)
cultural resource, key habitat for cultural resources	darrngarla (mangrove species and communities)
cultural resource	gunwa (sharks general)
cultural resource	anjuwarr (stingrays)
	bayalu (blue-spotted stingray, *Dasysatis kuhlii*)
	bunjumarru (mud-crab, *Scylla serrata*)
	clams
	gaadai (white lips, *Plectorphynchus sp.*)
	gudbinggarri (cheeky mangrove worm, *Bankia australis*)
	marlinju (oyster, *Saccostrea echinata*)
	marrnga (Brahminy Kite, *Haliastur Indus*)
	mununginyunga (barramundi, *Lates calcarifer*)
	mIrrgalu (sweet mangrove worm, *Bactronophorous thoracites*)
	ngarrwan (mangrove snapper, *Lutjanus argentimaculatus*)
	ngarrwar (periwinkles)
	walan (white-bellied sea-eagle, *Haliaeetus leucogaster*)
	wunbarlu (blue-bone groper, *Choerodon cyanodus*)
	wumalawa (rock cod, *Epinephelus suillus*)
	yuguru (queenfish, *Scomberoides spp.*)
cultural significance	bujulum (trepang)
Target 10: Mangguru (marine turtles) and balguja (dugong)	
cultural resource, marine species, migratory species, vulnerable species	juluwarru (green turtle, *Chelonia mydas*)
	maral (hawksbill turtle, *Eretmochelys imbricate*)
	mardumal (flatback turtle, *Natator depressus*)
cultural resource, marine species, migratory species, endangered species	lawarra (loggerhead turtle, *Caretta caretta*)
	leatherback turtle (*Dermochelys coriacea*)
marine species, migratory species, endangered species	Olive Ridley turtle (*Lepidochelys olivacea*)
cultural resource, marine species, migratory species	balguja (dugong, *Dugong dugon*)
key habitat for cultural resources, biologically important for primary production, key habitat for threatened, marine and migratory species and for other marine species	jala (seagrass)
key habitat for cultural resources, cultural significance, internationally distinct coral province	warrurru (reefs)
marine species, migratory species, vulnerable species	wul/ji (humpback whale, *Megaptera novaeangliae*)
cetaceans, marine species, migratory species	yingarl (dolphins) including: common dolphin (*Delphinus delphis),* indo-pacific humpback dolphin (*Sousa chinensis),* striped dolphin (*Stenella coeruleoalba),* spinner dolphin (*Stenella longirostris),* munumba (snub-fin dolphin, *Orcaella heinsohni*)

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Kimberley Land Council

Indigenous Protected Areas Program of the Australian Government's Department of the Environment, Water, Heritage and the Arts.

Australian Government
Department of the Environment, Water, Heritage and the Arts

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