

Bulletin of Environs Kimberley – Issue 95 / April 2022



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Crunchtime for the Martuwarra Fitzroy River — Time for action!



With a decision on the future of Martuwarra Fitzroy River imminent, Kimberley people converged on Willare Bridge to demonstrate for the protection of the National Heritage-listed river. More than 50 people, Traditional Owners and supporters, travelled up to 300km on Sunday 27 March to take a stand.

We gathered under storm clouds and over the free-flowing river, standing in 40-degree heat behind two big banners emblazoned with the words, 'Premier McGowan, Protect the Fitzroy'. The future of the Martuwarra is at stake.

In 2021, more than 43,000 submissions were made in response to the State Government's Fitzroy River Water Discussion Paper, calling for the river to be protected. Over 1,100 submissions came from the Kimberley.

The demonstration aligns with a worldwide push to ensure that the UN Declaration on the Rights of Indigenous Peoples is upheld, where water injustice is a legacy of colonialism. Proposals to pump more than 375 billion litres of water from the river by pastoral leaseholders Gina Rinehart and Murray-Darling cotton and beef farmers, the Harris family, will risk the health of the Fitzroy River.

Robert Watson, Chair of Walalakoo Aboriginal Corporation, who was at the event, said that Traditional Owners did not support any proposed intensive agriculture developments on the river.

"Our position on this is centred around learning from the previous developments we have seen worldwide and in Australia. Projects like this go ahead, with all the best intentions and with people with expertise weighing in, and 25 years later we see irreversible environmental destruction."

Mr Watson said he did not want to leave a legacy of environmental destruction for the next generation.

Joe Ross, former Chair of the Commonwealth Government Northern Australia Land and Water Taskforce, said the Bunuba people aspired to work on Country and share it with the world through tourism.

Mr Ross said there is a perception that the resources and agricultural sectors are a panacea for the problems of the area, but the expansion of national parks, tourism, park rangers and environmental services will create far more jobs and opportunities for young Bunuba people, and give them hope through being in touch with their culture and Country. "We are very concerned and always concerned about industrialisation on our Country," he said.

Those who took part in the Willare Bridge action are supported by over 88 cent of the 2976 potential visitors surveyed online by Curtin University's Tourism Research Cluster, who said they support the Martuwarra Fitzroy Region being protected more extensively as a National Park or being included as part of a World Heritage site.

The survey was part of a report (see EK website - New report shows large potential for tourism growth in Kimberley's Fitzroy Valley, 16 Feb 2022), which found that \$43 million in extra tourism income could be earned if National Parks along the river were expanded, with 160 new full-time jobs, providing long-lasting benefits for the community. Environs Kimberley is concerned that irrigation proposals could turn the Martuwarra into the next Murray-Darling, damaging the river and harming any future for tourism.



Report From The Chair

Natalie Davey

It's been a wonderful wet season in Fitzroy Crossing. I'm extremely fortunate to live so close to the Fitzroy River. Every day I get to see the changes that come with the seasons, and the wet season is one of my favourite times of the year. Every year when the river floods I love watching the explosion of life that comes with a flood.

It has been such a good barramundi season, families sharing their catches of the barramundi from the sea. My birth totem, the Balga (barramundi), can only continue to reproduce if the mighty Fitzroy River floods regularly, free from chemicals like pesticides and fertilisers, which is essential for a healthy fish population. The health of the Balga is inseparable from the health of people.

It was great to be able to attend the gathering at Willare on Sunday 27 March (see front page article). I thank the many people who travelled to show support for the river, including my 91-year-old Jaja (grandmother). The message to the WA Government and Premier McGowan is critically important. I strongly urge you to write to your local Members of Parliament, calling on them to protect the Fitzroy as was promised at the 2017 State election. It's easy to do.

Please go to our website and under the 'What you can do' tab, click on 'Protect the Martuwarra' and fill in the details before sending. Thank you.

Wali,

Natalie

How to protect the Martuwarra Fitzroy River

▼ GO TO

www.environskimberley.org.au

▼ SELECT

WHATYOU CAN DO ▼

▼ SELECT

PROTECT THE MARTUWARRA



Fill in your email, name, suburb and postcode



You can read the message you will send



To add your own personal message



CK SEND EMAIL



The email will be sent to your local MP and relevant upper house members. It's that easy! Thank you for helping to protect the Martuwarra.

Thanks so much Peter Mitchell

One of our longest serving Board members has resigned to take time out. Peter was a founding member of EK way back in 1997 and has made a tremendous contribution to the organisation over many years. He became a Board member in 1998, when he was appointed Vice Chairperson, a role he carried out for four years; he was Chair for two years, Secretary for one year and a Board member for seventeen years.

We thank Peter for his years of dedication, hard work and contribution to our efforts to protect the Kimberley. Peter says he's having a short break so we look forward to his return in the near future. We will have a thank-you and celebration of Peter's contribution and will let you know the details soon.



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Director: Martin Pritchard

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Acknowledgements

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Letters To The Editor

Environs Kimberley welcomes letters to the Editor. We accept comment and criticism, and print all letters that are not obscene, offensive or libellous. If you have a bone to pick, pick it with us.

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Director's Report

EK restructure ahead

EK has changed dramatically over the past 25 years, from three people around a kitchen table building a campaign to support Traditional Owners protecting the Martuwarra Fitzroy River, to a staff of 15 working across the region with the community, ranger groups, other conservation organisations, NRM groups and Land Councils. The work includes plant and animal surveys, fire management, recording Traditional Ecological Knowledge, supporting social enterprise development and Prescribed Bodies Corporate, and advocacy for the protection of the region.

This success reflects the passion the EK team and the community has for safeguarding the Kimberley. The team at EK — the Board, staff and volunteers— has built a resilient organisation

When I started work at EK in late November 2008, there were four of us in the office at Lotteries House. We were facing the biggest, most costly and damaging industrial project in the southern hemisphere, and the task of building up our Nature Project arm. The work that had been done before had set us up in good stead, but no one could have prepared us for the next five years. We forged relationships of trust, received strong support from our families and friends, and worked as an extended team. There were dark times but we made it through.

The main ingredients for the success of EK are the remarkable people who have put so much into making sure we keep on track and build on our mission to protect the Kimberley. Few organisations across the country have managed to combine strong advocacy with a highly successful Cultural and Natural Resource Management programme.

Our success has led to us deal with larger scale, complex problems across this vast, remote region. This has required more staff and placed more pressure on the Director's position, which has responsibility for managing campaigns, advocacy and fundraising, as well as organisational oversight. As the pressures have ratcheted up, the management team, staff and the Board have stepped up with strong support. We are now, given available funds, able to restructure the Director's position and create a new position to manage our advocacy work though campaigns, government relations, fundraising and communications.

After deep enquiry and thinking, I have decided to stand down from the Director's role and focus on the advocacy arm of EK. It was a hard decision. It's been an incredible twelve-and-a-half years as the Director of EK; I have learnt so much and people have been so generous with their time and understanding, sharing their skills and knowledge as well as giving general support. Thank you to all of you who have contributed to making my time as the Director possible — there are too many people to name. I look forward to continuing to work on protecting the Kimberley with you all. For the Kimberley!

Climate change in the Kimberley

We've had an intense start to the year: another fracking proposal, the continuing push to extract water from the Martuwarra Fitzroy River, dealing with COVID, and running a plethora of on-ground projects.

On top of that are global events, including the horrific war in Ukraine, which has resulted in countless needless deaths, instigated a refugee crisis and brought our reliance on fossil fuels into stark relief. Linked to that is the climate emergency manifesting in the east of the country as unheard of floods, another coral bleaching event on the Great Barrier Reef, and Perth's recordbreaking temperatures, with six consecutive days above 40 degrees Celsius.

Never has there been a time when our need to transition to renewable energy and keep fossil fuels in the ground been greater.

We've had our own taste of the effects of climate change and what we can expect if we burn fossil fuels at an everincreasing rate.

Country Downs on the Dampier Peninsula recorded 843mm of rainfall as a tropical low swept across the region in late January/early February this year. The station received 652.2 millimetres in 24 hours — the second-highest figure ever recorded in the state. In a day and a half, 352.8mm of rain fell on Broome, more than the 338mm for the whole of the previous year, according to the ABC. This is second to our wettest January in history in 2018.

While the media reports the weather, the implications are seldom on display. The huge cost of cleaning up and repairing the damage is usually picked up through insurance claims and government grants. We are starting to feel this as premiums rise – insurance companies understand climate change better than almost anyone else.

In February there was another washout at Demco. This is the third time that tonnes of pindan have washed into Roebuck Bay, smothering life in the mudflats. The last time, in 2018, the wastewater treatment plant overflowed, closing the beach for health reasons. The attempt to fix the damage has failed. After years of campaigning by locals and EK (see EK News Issue 90 – 'Huge win for Roebuck Bay'), the wastewater treatment plant, which has been polluting the bay for years, is being shut down.

The WA Government has yet to decide on future land use for the area, but it's clear that the stormwater that runs into that area must be slowed down or reduced, otherwise the same problem will continue with every severe weather event. Roebuck Bay is under increasing threat from the lack of water-sensitive urban design in the town and failure to understand how to manage stormwater.

We don't want to see the good decision to close down the treatment plant lead to an increase in the flooding problem, as it will if building takes place on the same site. The area could become a place that protects the Bay by slowing and reducing water discharge. A good design could do this and include a recreation/tourism area by developing a botanic park at the site – such a plan would need the whole community behind it. Let us know what you think by email: community@environskimberley.org.au

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Living Green

More tips to improve the sustainability of our daily lives without too much effort.

WORST CASE SCENARIO

One benefit of the shortage of goods in the supermarkets is that it simplifies life by reducing choice. So you can't get your preferred brand of cereal, yoghurt, toilet paper, dog treats or whatever, but you take what is there and are grateful for it. My mind goes to places where there are no substitutes, where shelves are empty or where people can't afford to buy the goods on them. I was about to remark that this may be the case for more of us soon, the way inflation has suddenly taken hold, but that would be to make light of the plight of the genuinely poor.

The shortages remind us how dependent we are on road transport, even for basic foodstuffs. As I write, a cyclone is looming, and that can interfere with deliveries even further than COVID. Once the supermarket shelves are empty of fresh produce, the government usually kicks in with a few loads sent by air, so we may be inconvenienced but we do not starve. Even so, we shouldn't have to rely on rescue missions every time we have a big blow.

But imagine a situation where Australia is invaded by an aggressor intent on extending its empire (yes, I know that happened back in the 18th Century, but let's not be distracted by uncomfortable reminders). The aggressor takes over the airports and grounds the flights, while local saboteurs blow up the roads, making them impassable to the advancing army as well as to delivery trucks. Not convinced? Well, then, imagine a more likely scenario, when severe fires or flooding in the south coincides with cyclonic devastation in the Kimberley. What then?

Which brings me back to one of my hobby-horses: greater self-sufficiency for our region. Those with long teeth and memories will know that Broome used to have its own small herd of dairy cattle who produced milk for the town. Pearl Coast Dairies stood near the first turn-off to Crab Creek, where feral peacocks sometimes scurry across the road. Cows used to graze on the flat there. This, of course, was in the days when temperatures were less extreme but, even then, the cows struggled to produce enough milk during the hot months. I don't see anyone setting up a dairy here again.

Fresh vegetables are of greater concern, especially during the Wet. Lots of people now grow a few veggies in their gardens during the cooler months, but let their patch go to seed and dry up come October. I have been noticing my neighbour's abandoned kitchen garden during this wetter wet season. Roquette is still producing leaves, spinach is holding its own, but the outstanding success is the kangkong (*Ipomoea aquatica*), which has proliferated. Kangkong does need plenty of water but can be grown in a bucket. Meanwhile, we should remember that people lived here before these foreign vegetables were introduced, and enterprising locals are developing industries using indigenous food-plants, of which the best-known are gubbinge and boab trees. When we are under siege, they will keep us from getting scurvy.



FOOLS WHO PERSIST

The fool who persists in his folly will become wise. William Blake.

Not always. Mad Cow.

A friend recently sent me a cartoon showing Dr Who stepping out of his Tardis, looking baffled and scratching his head. 'I went back to warn them,' he says to his secretary. 'But they already knew, and didn't seem to care.'

Yes, we do know what's coming if we don't change our ways, and fast. We have been warned, not by Dr Who, but by scientists. Yet few of us seem to care. Even those of us most convinced of the perilous state of our world make few concessions in their (our) daily lives. Those who take more drastic steps, like refusing to fly or drive a car, may be admired while being thought somewhat whacky, carrying this saving-the-world caper too far.

Take land-clearing. Most of us learnt in primary school that trees, and especially forests, bring rain and cool the land. They bring rain in complex ways, but mainly by evapo-transpiration. They draw up water through their roots and transpire water vapour into the atmosphere through their leaves. The vapour forms clouds, which, as we know, drop rain. Some clouds are carried long distances before they drop water, so that forests in one area may provide moisture in another. Trees cool the land by shading it from direct sunlight (even dogs know that), by absorbing carbon from the atmosphere, and by producing those clouds, which also shade us from the sun.

We shouldn't be surprised, then, that broadscale landclearing reduces rainfall, heats the ground, causes drought and can lead to desertification. Have you ever flown over the wheatbelt and looked down on the vast stretches of denuded landscape, with its few remnant patches of native forest? Have you noticed the often dried-lake appearance of rising salt? That too is a result of loss of tree cover — so the very land cleared for agriculture becomes unusable. Yet we keep doing it.

Then there is continued exploration for and exploitation of oil and gas, most notably by fracking. We know that Australia has undertaken to reduce our carbon emissions, yet we persist in increasing them. We are told that lowering people's electricity bills is more important than lowering Earth's temperature. When we should be pulling all the stops out to reduce emissions, we do the very minimum — and even cheat in our accounting to get away with doing less.

Back home in Broome, we see that the new plan for Cable Beach Foreshore Redevelopment includes the building of a seawall over the rocky part of the cliffs to the north of the precinct. Seawalls are notorious for exacerbating the erosion they were built to mitigate. While they may protect buildings and other assets close to the coast, they interfere with natural processes and cause scouring and lowering of the beach. In some cases, the effect is so severe that the beach disappears.



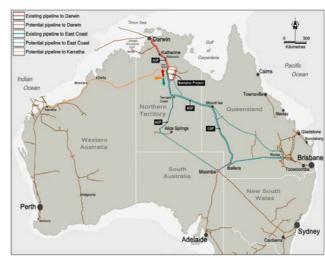
Another pipeline to help frack the Kimberley?

Shaun Clark

In January, Falcon Oil and Gas, a company with headquarters in Ireland and big plans to frack in the Northern Territory, released a map of a potential pipeline running through the Kimberley from the NT to Karratha.

Falcon is in a joint venture with Origin Energy in the NT, while Origin Energy is in a joint venture with Buru Energy in the Kimberley's Canning Basin. This is the second pipeline proposal we have seen in recent months. Any pipeline running through the Kimberley would open up the Canning Basin to a large-scale fossil fuel extraction industry, including fracking, and change the nature of the Kimberley forever.

We recently found out that one of Falcon's major shareholders is Russian oligarch Victor Vekselberg, who is already under US sanctions.



Options for a new large scale greenfield pipeline to Western Australia Source: Origin Energy

Federal Government gives Empire Energy \$20m to frack the NT and \$200m for supporting infrastructure

The Morrison Government has continued on its path of a 'gas-led recovery' by supporting a carbon bomb in the Beetaloo Basin. Traditional Owners have been fighting fracking companies in the NT for many years and we stand with Traditional Owners across the country who are pushing back against an industry that threatens the health of their country and communities. With two separate pipeline proposals now threatening to traverse the Kimberley region, the reality magnifies. These companies are likely to require taxpayer money to make their proposals viable. The Federal Government's Northern Australia Infrastructure Facility (NAIF), a cheap-loan facility using our taxes, provides funds industry could use. We're calling for the NAIF to no longer be allowed to fund fossil-fuel projects, which is in any case contrary to the International Energy Agency's recommendation that there should be 'no new investments in oil, gas and coal, from now'.

Woodside aims for the Kimberley again?

According to a recent news report, Woodside Petroleum has some two years to avert the shutdown of one of its five trains at the North West Shelf LNG facility and has been talking to everyone about third-party supply. Woodside CEO Meg O'Neill stated, "We are talking to everyone...We are out looking for additional gas...The joint venture has set up a marketing arm to speak to all and sundry to talk about processing their gas or other gas." One of the potential Woodside gas sources mentioned in the article is in the Kimberley's Canning Basin, specifically Black Mountain's proposed 'Valhalla' fracking project in the Fitzroy River Valley.

Introducing fracking to the Kimberley would be a disaster for the world's climate and the region's environment, economy and communities. We have written to Woodside to remind them of their previous disastrous attempt to industrialise the



25,000 people march through Fremantle in 2013 calling for the Kimberley to be protected from Woodside's gas hub. Photo: Adam Monk

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Women's Environmental Leadership

Ayesha Moss

I was fortunate to participate in the Women's Environmental Leadership Australia (WELA) National Leadership Development Program over the year of 2021.

I took part in a mix of online and face-to-face workshops. Within these, we discussed a better approach to management and leadership than the traditional patriarchal systems common in society. Deep listening and sharing were essential elements. We heard from women leaders who were working at all levels of government and using art as activism, and from first nations women sharing knowledge on Aboriginal and Torres Strait Islander rights and perspectives.

Topics included feminism, decolonisation, relational practice, justice, equality, diversity and inclusion. Of these, I found learning about relational practice in leadership most valuable, where relationships between people are prioritised and the focus is on empowerment, inclusion and collaboration.



Ayesha taking a closer look at the pink flowers of the biido (Melaleuca nervosa), on the Dampier Peninsula, Photo: Sherena Bin Hitam

I came away with tools to explore my own drivers, power, and potential for impact. Also important was exploring the people around me, in the environmental field, and ways to improve our understanding of and connection to each other. At the completion of the course, I shared what I had learnt with Environs Kimberley staff, with the aim of reflecting on our own practices and exploring options for change and improvement.

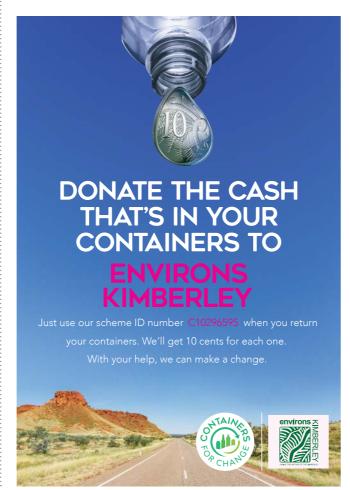
I enjoyed the program thoroughly and highly recommend it to any woman or gender diverse person interested in exploring leadership in the environmental and climate action field. It pushes participants to think deeply, to share and ask questions. My hope is that Kimberley women attend the course to build a network of women leaders, passionate about better environmental outcomes.

My participation was made possible through funding from the Australian Government's National Landcare Program and the support of the management team at Environs Kimberley.











Western deserts collaboration through the Wiluna biodiversity workshop

Adrian Boyle

Environs Kimberley was invited to take part in a Biodiversity Workshop in Wiluna Western Australia on 20 and 21 October 2021.

The first day was dedicated to Night Parrots, while the second focused on other threatened species of the Western Deserts, including Desert Skinks and Bilbies.

On the first day we heard from ranger groups about recent Night Parrot sightings, survey methods and proposed survey plans. Night Parrots have now been recorded in the Great Sandy Desert, Little Sandy Desert, Pilbara and Murchison bioregions in Western Australia. For a species only rediscovered in Western Australia in 2017, this surprising breadth of recorded sightings is a testament to all the Aboriginal ranger groups leading this work, and the Elders, communities and organisations supporting them.

EK's ecologist, Adrian Boyle, presented a session on habitat mapping for the Night Parrot: how to combine cultural knowledge and satellite imagery layers to locate the drainage lines and old spinifex that Night Parrots need. This allows researchers to identify potential sites for on-ground searches and audio recorder deployments.

Adrian was followed by Nigel Jackett, a former EK staff member, on the methods to use when going to those sites, identifying bird calls and analysing the data from song

Armed with knowledge about how to identify Night Parrot habitat and what methods to use to search for the birds, rangers are likely to discover more Night Parrot locations.



Participants of the Biodiversity Workshop. Photo: Chris Curnow



Nigel Jackett demonstrates how to record bird calls using a mobile phone Photo: Adrian Boyle



Satellite imagery showing old growth spinifex. Source: Google Earth, Maxar

This work was funded by Rangelands NRM, through the National Landcare Program.









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New 25th Anniversary reusable coffee cups available now!

Maddie Edwards

Our new 25th Anniversary, limited edition reusable coffee cups are a sustainable alternative to plastic, rubber or paper single-use takeaway cups.

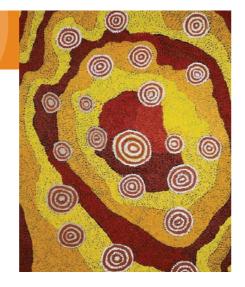
Made by Fressko, these stylish cups were thoughtfully designed in Melbourne. Made using 100% BPA-free materials, they are vacuum-sealed and scratch-resistant, with a spill-proof, screw-in, easy-to-clean, no fuss, lockable lid and internal barista's lines. The reusable coffee cups fit perfectly under the barista's machine and in your standard cup-holder, and are ideal for travel. Your coffee, tea, chai latte or hot chocolate will stay hot for up to 3 hours – even longer in the Kimberley! We know these limited edition cups are going to be extremely popular, so act quickly to secure yours through our website. All proceeds raised through the EK Shop go towards our work to protect the Kimberley.



Environs Kimberley Fundraising Raffle 2022

We are so pleased to announce the winner of our recent art raffle. Congratulations to Marita Hemingway from Queensland! Marita has won the beautiful piece by Balgo artist, Ann (Frances) Nowee. A big thank-you to our supporters who participated in this year's raffle. We will have another art raffle mid-year, so keep an eye out on our social media for the next stunning painting that could be yours!

Prize: 'Nyinmi', 900 x 600mm, Acrylic on canvas by Warlayirti Artist, Ann (Frances) Nowee



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EK Merchandise

Looking for the perfect gift for yourself, or for someone you love? Check out the EK Shop for great ways to show you care – about the people you care for, and about the Kimberley. You will find:

- EK Gift Membership and Donation Gift Cards different cards to choose from, featuring Kimberley threatened species or ecosystems (donation gift cards are tax deductible)
- · A stunning selection of EK t-shirts, singlets and hats
- · books and other great gifts

For more details, visit: www.environskimberley.org.au





Save the date

For 19 years the annual Art Auction has been Environs Kimberley's premier fundraising event and a highlight of Broome's social calendar. This year's auction will again be both live and online, so no one need miss out.

- Online Art Auction: Thursday 4 August – Sunday 14 August
- LiveArt Auction: Saturday 6 August at the Broome Convention Centre More details to come.



Volunteers Needed

For years now, volunteers have been the backbone of Environs Kimberley. They have worked with us to preserve and protect the Kimberley, a landscape of incomparable grandeur. People like you who value one of the great natural places on earth, have given their time, energy and skills at our fundraising events and market stall.

Yet, as you know from reading this newsletter, Kimberley landscapes and ecosystems are under threat like never before and your help is more important than ever.

We are calling for market stall volunteers to join us in providing community information about these threats and our work. We need your support to protect the Kimberley. Please consider joining our team and invite a friend.

Volunteers at our market stall at the Broome Courthouse Markets get to meet interested, friendly people and more of the community in a vibrant setting. We will support you to be effective by teaming you with someone experienced. Depending on your skills, you may prefer to be a driver of our market stall trailer. Please consider lending a hand. We can't do it without you.

The Saturday morning shifts are from 7.30 to 10.00, and from 10.00 to 12.30. You can do a regular shift or join the pool of volunteers who fill in occasionally. Drivers pick up our trailer and bring it to the market at about 7am or return it at midday.

If you are interested in helping, please get in touch now. Our contact details are on page 2 of this publication.



Liz Jack at the Markets. Photo: Anomie

Using your will to protect the Kimberley

One of the most significant ways to leave a lasting legacy for the nature of the Kimberley is to leave a gift in your will to Environs Kimberley.

Large or small, when you make a bequest you are helping to provide for the future of the Kimberley. You are giving Environs Kimberley the power to speak out and act for our region and ensure its protection for future generations.

Please contact us on (08) 9192 1922 or finance@environskimberley.org.au for advice on making a bequest to EK.

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What do bilbies eat?

Malcolm Lindsay

Bilbies are opportunistic omnivores, which means they will eat whatever they can when

the opportunity arises. They eat grass seeds, spiders, moth grubs (witchetty grubs), termites, other insects, bush tomatoes, other bush fruits, mushrooms and bush onions, among other things. Although they have a broad diet, they have preferences — when conditions are good, they enjoy the more nutritious grass seeds, grubs and bush onions; when conditions are not so good, they are stuck eating termites.

Many of these food items were, and still are, important components of Aboriginal diets in the desert, meaning that when Aboriginal people manage land to promote traditional human food resources, the Bilbies benefit.

So how can that relationship be applied in a modern conservation context? This is the research question we want to explore with the Gooniyandi Rangers.

Firstly, we did a field trip with the rangers to find out what some of the Gooniyandi nyarlgoo (Bilbies) were eating. Sifting through their scats and looking at them under the microscope, we found most scats contained grass seeds from lugaraden (*Yakirra australiensis*) and lagarndi (grub) heads, some also containing nganyjaarli (bush tomato: *Solanum* sp.) seeds. These are the more nutritious Bilby food items, suggesting that conditions were good for the nyarlgoo.

As these are food items for Gooniyandi and desert groups, people know a lot about them. We are learning from Gooniyandi Elder and local custodian Claude Carter where they occur across the landscape and, most importantly, how they respond to different fire regimes. For example, lugaraden grass responds to hot fires and rain, putting on lots of seed 1–2 years after fire, whereas lagarndi grubs occur in only certain shrubs, for example *Acacia tumida*, which need protection from fire. From these two examples you can see that different food items need different fire conditions, so the best area for Bilbies has a mix or matrix of different fire-age patches.

Later this year, we will apply this knowledge by mapping fine-scale fire history and doing Bilby food surveys to see how Bilby food resources relate to fire at a landscape scale. The Gooniyandi Rangers will then do targeted fire management, with support from the Kimberley Land Council, to increase the matrix of different fire ages and, by extension, food resources for Bilbies. There are still foxes and feral cats to contend with, which we will also be working on, but if we can at least make the best habitat for Bilbies, that gives them the best chance.



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Proud to be associated with Environs Kimberley



Gooniyandi Ranger Virgil Cherel sorting through nyarlgoo (Bilby) scats. Photo: Malcolm Lindsay



Food items from a nyarlgoo scat: top left, two lugaraden (*Yakirra australiensis*) seeds, top right, two nganyjaarli (bush tomato, *Solanum* sp.) seeds, and bottom, the head of a moth grub. Photo: Malcolm Lindsay

This work is funded by Rangelands NRM through the National Landcare Program, and by the Foundation for National Parks and Wildlife.









Free Computer Service

for Pensioners and Unemployed 1st Tuesday of the month



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Waging war on coffee bush

Hamsini Bijlani

Coffee bush (Leucaena leucocephala), a highly invasive woody weed, is one of the more

abundant weed species found in Minyirr Park. Its presence in the park is a threat to the only patches of culturally and ecologically significant Monsoon Vine Thickets on Yawuru Country. Also known as 'sneaky bush', it can grow almost unseen in sheltered and shaded areas of dense vegetation.

The Yawuru Country Managers and the Department of Biodiversity, Conservation and Attractions (DBCA) have been working to control weeds in Minyirr Park and protect the endangered Monsoon Vine Thickets, yet the continued presence of weeds is one of the biggest threats to the health of the park.

In order to help make management easier and more effective, Environs Kimberley staff and volunteers conducted a yearlong trial to understand what chemical methods are best for controlling coffee bush in Minyirr Park. We found that different treatments worked best on different sizes, or life-stages, of coffee bush:

- The best way to treat small seedlings is to hand-pull them during the wet season when the soil is soft
- The most effective way for treating larger seedlings and saplings with a diameter smaller than 2cm is to cut them down at the base using loppers or secateurs, and paint the cut surface with Vigilant II Gel Herbicide.
- Basal-barking with a mixture of Access Herbicide and diesel (in the ratio 1:60) was found to be the most effective way to treat big coffee-bush trees, with a 70% success rate. It has a 53% success rate on seedlings and saplings. Basalbarking entails saturating the entire circumference of the plant with the mixture, from the ground up to a minimum height of 30cm. This is a great option if you do not have access to chemical herbicides but still want to get rid of coffee bush.

This trial was part of a larger Monsoon Vine Thicket project conducted in partnership with the Yawuru Country Managers, Bardi Jawi Rangers, Nyul Nyul Rangers and the Department of Biodiversity, Conservation and Attractions, and funded by the Western Australian Government's State Natural Resource Management Program.











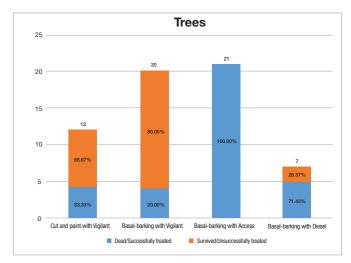


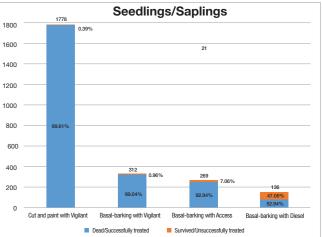


Volunteers Kirrily Preist and Courtney Brown using the cut and paint method with Vigilant II Gel Herbicide. Photo: Hamsini Bijlani



Minyirr Park area after weeding. Photo: Hamsini Bijlani





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