



COVID 19 and the Kimberley

Martin Pritchard, EK Director

There's never been such a stark reminder of the connection between the health of the natural environment and public health. HIV, Ebola, Hendra, SARS, MERS, bird flu and now COVID-19 have all jumped from animals to people. Three-quarters of new infectious diseases in people originate from animals, either wild animals or livestock. The destruction of ecosystems, along with the capture and selling of multiple species of wild animals in markets, is threatening us all.

COVID-19 has led to the whole Kimberley being locked down as a designated area under the Commonwealth Biosecurity Act to protect vulnerable people, particularly in Aboriginal communities across the region. This is as it should be; our work reminds us of the encyclopaedic knowledge elders have of plants, animals, places, weather and other cultural information, and this crisis shows how vulnerable people and their knowledge are. The magnitude of what we are facing is such that it can only be managed through a partnership between Kimberley people and governments. EK stands with Aboriginal people in that partnership.

The global response to this pandemic is unequalled and it has exposed the injustices in economic systems from inadequately funded healthcare provision, unjustifiably low levels of support for the unemployed and inequities for casually employed people. While India, which has 21 of the world's 30 most polluted cities, now sees blue skies for the first time in 10 years, according to some observers, and fossil fuel emissions from the airline industry have plummeted, mountains of waste are piling up from non-recyclable coffee cups (reusable ones not being accepted) and medical waste has quadrupled in Wuhan, the epicentre of the virus.

When we get through this pandemic we have an unrivalled opportunity for a new future. We should never return to what we had before, economically or politically. Let's use this period of forced shutdown to imagine and work towards a different future. Everyone's life has been transformed while we try to get through this pandemic with the fewest possible casualties. We're looking at several more months of using our time to care for each other and think productively and creatively to adopt practices that will endure beyond the crisis.

EK will be posting regular advice about producing food, interacting with nature while adding to knowledge about plants, online seagrass monitoring, and practical tips on weeding and growing native plants. Stay safe.

CANCELLED

We've had to cancel our premier fundraising event because of Coronavirus. We are calling for your support – please become a regular donor.





Report From The Chair

Kate Golson

Hello all

With the rapid escalation of C-19 virus, EK began some weeks ago to plan and put into place measures that will ensure we are operating safely and responsibly in fast-changing circumstances.

Early on we developed an epidemic and pandemic policy, which prepared us for the closure of the office last Friday (March 27). All staff are now working from home and the Board will meet monthly by video conference.

We anticipate that the crisis will have a significant effect on our financial circumstances. It is highly unlikely that we will be able to hold our largest fundraiser, the Annual Art Auction, in Broome in July. Uncertainty also hangs over our Concert for the Kimberley with Xavier Rudd, which was due to take place in September.

The Kimberley Nature Project team has assessed the implications of C-19 for EK's on-ground project activities, and concluded that, given the likely long term restrictions, on-ground works will be significantly curtailed. Our campaigners have likewise reviewed their plans for all Fitzroy and Frack Free Kimberley activities. Trips out of Broome and face-to-face contact are no longer possible and future funding is uncertain. The implications of this are still unfolding.

So, we are looking into other ways and means to fundraise and generate revenue for the foreseeable future. One of these is to ask EK members to consider becoming monthly givers. This can be for as little as the cost of a cup of coffee and provides us with a degree of certainty that one-off donations do not.

Among other things, your recurring donations have enabled EK, this year, to support Bunuba, Gooniyandi and Nyikina Mangala traditional owners in their fight to keep the Fitzroy flowing free – through such means as helping to gather information and disseminate it to communities.

It is with great sadness that I mention the recent loss of Kevin Smith. I saw more of Kevin in the early mornings on Reddell Beach than anywhere else. For many years, he'd be accompanied by Trevor, his wonderfully calm canine companion, while he strolled up and down the sands with camera in hand.

Aside from several years as a Board member, Kevin contributed much to EK: as a Gift Fund committee member, with financial advice, by photographing events and in so many other ways. And that was just for one organisation – across Broome, he gave his time to the arts and music and business – and worked hard for the turtles! He will be missed.

All the best,

Kate

DID NO ONE SPOT MY ERRORS?

In December's edition of the EK Newsletter, Mad Cow made not one but two egregious errors, which no one seems to have noticed. Maybe that's because no one reads our Newsletter.

In the article, which, ironically, was titled Damned Lies and Statistics, I claimed that the United States was the worst per capita producer of carbon emissions – worse even than Australia. After we had gone to print it suddenly dawned on me that my figures, taken from the United Nations list, 2016, showed that Americans would come in just behind us. However, World Bank figures from 2019 show the US producing 16.5 metric tonnes per capita, ahead of Australia's 15.4 metric tonnes. So that part was right, at least.

My second error was to imply that the United States is the worst per capita emitter of all. But the Internet showed me that I was wrong about that as well. Americans are the highest emitters of countries with a sizeable population, but 11th in the world, after a number of Middle East countries and the island of Niue, with a population of 1626. The highest emitter is Qatar and the lowest is Madagascar, even though everyone there cooks on charcoal.

So: my apologies for the confusion; I hope my explanation above hasn't added to it. Meanwhile, Australia is still up there with the worst.

Mad Cow

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Letters To The Editor

Enviro 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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Thanks for helping
us to protect the
Kimberley environment



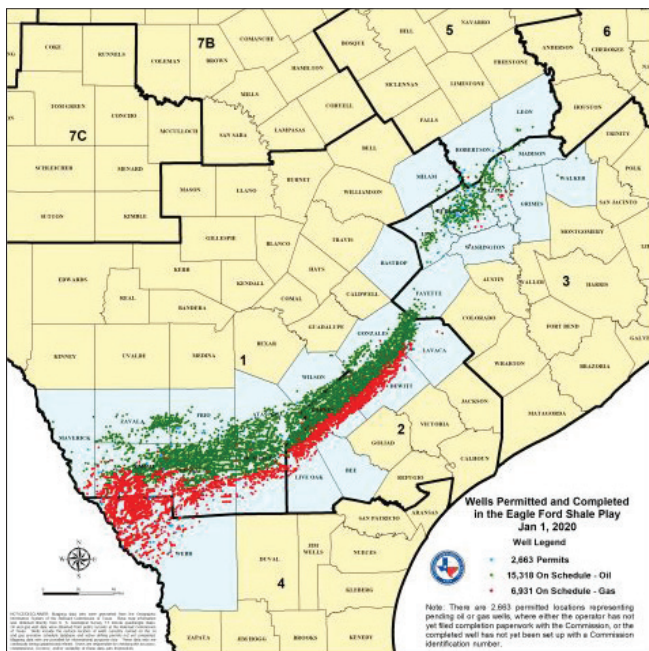


Towards a Frack Free World

Shaun Clark

As we all adjust to a Covid-19 world, we cannot afford to drop our guard on the key environmental issues at hand. The trajectory of fracking the Canning Basin pre-Covid-19 was heading towards an industrialised West Kimberley landscape.

Three main companies were aiming at high-value targets in a high-oil-price environment. The pandemic has left shareholders of oil and gas exploring companies facing a crash in value not seen for decades. April estimates of oil consumption worldwide show a drop of between 15 and 22 million barrels per day. The US alone is expecting close to a 50% decrease of gasoline (petrol) usage in April. Usually when consumption decreases, storage facilities come into play as usage will increase again in the short term. The problem the producers have now is that storage is full and there will be an estimated 20 million barrels per day (if they keep allowing the wells to produce) with nowhere to go.



Oil and gas wells in the Eagle Ford Basin in Texas

It's not just the decrease in consumption that is affecting the oil price. Russia and Saudi Arabia have flooded the market, driving prices down, which ultimately makes the industry unviable. Some say this is a deliberate act to wipe out the US shale fracking industry. This industry was already plagued with fiscal problems and is highly unlikely to be viable in a 20-USD-a-barrel world. Estimates for April are 10-USD-a-barrel — a benchmark not reached for more than two decades.

The Texas landscape (Google Earth Texas and expect to be shocked) has regions with tens of thousands of wells, pipelines, pump jacks and well pads. This could be what the Kimberley landscape would turn into. The virus has put paid to that in the short term but we need to be vigilant and make sure our governments don't encourage this industry once the crisis is over.

We must not underestimate the size and scale of the Canning Basin oil-rich shale platforms. The Lower Goldwyer shale hydrocarbon prospectivity in the Canning is rated as 'second to none' against that of US platforms, specifically the Eagle Ford platform in Texas. The Eagle Ford shale play has more than 22,000 oil and gas wells in an area 80km by 650km. The Canning Basin is the size of Texas, with many geological platforms considered to be rich in oil and gas: the Laurel, Lower Goldwyer, Nambeet, to name a few. If the Lower Goldwyer is classed as a second-to-none resource, then just how many oil and gas wells could we have expected across the Kimberley savannah? This is a frightening vision.

Just as with the virus, we cannot afford to take our foot off the brake pedal. We must continue our pressure on the government and the industry until we rid this country of this destructive, polluting practice. As the Arctic methane continues to escape at rates many times faster than predicted, and the climate catastrophe continues to threaten our very existence, we must look forward wisely and create a world that does not treat our environment with disdain. We can do it, we must do it, and we will do it.

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Living Green

– PAINLESSLY

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

With so much unsought leisure time to spend at home over the next few months, what are some of the things we might do to keep ourselves sane? Here are a few ideas that won't turn us into couch potatoes:

Gardening. Grow your own veggies instead of going to the supermarket.

Learn yoga; there are plenty of on-line courses. Think of the fitness benefits, and it's good for the mind as well.

Take up jogging, if that appeals to you.

Walk the dog twice a day, not stopping to talk to other dog-walkers.

Wash your hands.

No dog? Take up birdwatching. Any nature study (as we used to call it) 'takes one out of oneself', which is exactly what we need when we have been doing too much screen-gazing or introspection.

Go for a swim. The pool is closed, but there is all that ocean out there, and little likelihood of you finding yourself on a crowded beach.

Lift weights, punch a bag, skip or do calisthenics on your veranda or in your yard.

Wash your hands.

Clean the car.

Spring-clean the house.

Wash your hands.

Paint the house.

Learn carpentry on line and make tables.

In between these strenuous activities, take time out and

Wash your hands.

Read novels, write novels, write a poem, paint a picture, write letters, knit, sew, learn to darn, teach yourself ukulele. Read the Tibetan Book of the Dead.

Oh, and wash your hands.



Ruminating with MAD COW



THE SECOND LAW OF THERMODYNAMICS

It is the only physical theory of universal content which I am convinced... will never be overthrown.
Albert Einstein

I'm with Einstein on that. There is no need to travel the world taking photos of solar eclipses to prove him right — my own life is a testament to his rightness.

The Second Law of Thermodynamics, for those who may have forgotten, states that everything trends towards disorder. There are fancier ways of describing it, but that's what it boils down to. Mountains erode, bodies age, dead things decay, a rusty car gets rustier, and my house becomes increasingly chaotic. I sweep my front veranda, leave it alone for a week or so, and when I next look, it is covered with leaf litter, frog droppings and caterpillar excreta. Nothing ever trends the other way, as in reversed film footage. Floors don't become clean by themselves, dust doesn't disappear, dead frogs don't hop. And leaves scattered by a leaf-blower tend to blow back.

Nature has developed ways of resisting this iron law, but only to a degree. It's called sexual reproduction. Two adult bodies, animal or vegetable, combine their gametes and produce young versions of themselves. But, once born, hatched or germinated, these new creatures are subject to the Second Law, the same as everything else. They mature, reproduce if they are lucky, grow old, and then die. And on it goes. Eventually, the earth itself will be swallowed by the sun and all our troubles will be over.

Meanwhile, human beings are enthusiastically increasing the disorder. With our insatiable appetites, we are consuming most of the world. We dig up coal and oil, burn it and turn it into atmospheric carbon, wreaking havoc with our climate. The resultant fires do much the same, reducing millions of tonnes of timber, not to mention millions of animals, to carbon and ash. I could go on...and on...but you know all this. So why don't our dear leaders know it? It's hard to believe that they do know it, but work wilfully against remediating the mess we've all created.

And now we have a pandemic that is accelerating chaos in the human world, hastening the end for some of us, but providing a few benefits at the same time. Have you seen the satellite images of China, showing the plummet in pollution? The volume of greenhouse gases that will be saved by grounding airline fleets and reducing travel in general is phenomenal — we could never have achieved as much through our own efforts. We may reach our Paris targets after all.

Now is the time to rethink globalism and explore the benefits of self-sufficiency. Over the next few months the Kimberley's centres of population could become Transition Towns, producing things we need locally. We can grow food in our back gardens, pickle vegetables, remake old clothes, and convert newspapers into toilet tissue (you have to rub the paper to soften it). As Eric Idle sang: 'Always look on the bright side of death.'



Weeds Network News

Louise Beames

We are excited to have officially kicked off our Regional Weeds Network and Forum project. The intention of the Network is to build on the great momentum already generated throughout the region, support a regional voice, extend regional awareness and improve opportunities for collaboration and funding.

Newsletter

The first Kimberley Weeds Network newsletter is a compilation of stories about Kimberley weeds, control activities, priorities, research and history from people and organisations from the east to the west. Thanks to the many contributors, lots of weeds get a mention including: neem, grader grass, giant sensitive plant, gamba grass, rubber vine, praxelis, creeping cinderella weed, lantana, salvinia, date palm and siam weed. We also took the opportunity to remember and acknowledge the late, much-loved local identity Dave Dureau, as a significant Kimberley Weed Warrior.

The newsletter is available on our website

www.environskimberley.org.au/kimberley_weed_forum.

Please contact us if you would like to be part of the next newsletter. You might have a weed picture or a short article about weeds to contribute; maybe there is a weed warrior in your part of the Kimberley whom you would like to acknowledge.

Forum

In 2015, people gathered at the inaugural Kimberley Weeds Forum to discuss regional weed priorities and strategies, and share maps and information. To our great satisfaction, two of

the weeds identified by participants as being amongst the priority five weeds for the region have since been listed as declared weeds.

Before Covid19, a 2020 Weeds Forum was fairly and squarely on the agenda for the network to bring weedos together to share important information about identifying and eradicating new and emerging weeds, and best practices and innovations in control, as well as to facilitate data collaboration. Now we need to postpone the Forum until safer times; however, we do intend to continue to gather people's voices on weeds in the Kimberley without *actually* gathering people.

Should you be anywhere in the Kimberley with access to a phone, computer or community centre with video conferencing, and wish to be an active member of the Network, we would love your energy on the working group to support others regionally in their efforts to detect, control and eradicate weeds, and help design and build towards a 2021 Forum.

For those who would like to be on the Kimberley Weeds Network email list for invites to meetings, weeding days and catch-ups, to receive the next newsletter — and receive updates on the future Kimberley Weeds Forum — please email Louise Beames and Danielle Bain at

weeds@environskimberley.org.au

The 2020 Weeds Forum and Weeds Network has been supported by the State NRM WA



It's Here (no, not the virus)

We are often warned that we are on the brink of climate catastrophe and ecological collapse. Well, I'm here to tell you that we are no longer at the brink; we are over the edge. It's happening now.

It's easy to look at each disaster, each extinction, as a singular event, unrelated to other such events, with its own, mainly local, causes. Even when climate change is implicated, we still tend to treat the episode as an 'event'.

But take a step backwards and have another look. In November, thousands of short-tailed shearwaters, migrating to South Australia from Alaska for the northern winter, washed up dead on Sydney's beaches. They had no reserves of fat and their alimentary tracts were empty — in other words, they died of starvation. Many more are thought to have died at sea.

Australia is not the only country where shearwaters have died en masse. Similar die-offs have occurred in Alaska and on the Chukotka Peninsula in Russia, just across the Bering Strait. The birds are starving because the marine food they depend on is depleted, including krill and cod.

Cod stocks collapsed in the North Atlantic in 1993 because of overfishing, particularly by trawlers using modern technology. Despite a moratorium on cod-fishing by Canada, subject to the political argy-bargy and obfuscation that we are so

familiar with here, and a modest rebound in some populations, cod stocks have never recovered. Any such recovery has been stymied, over the past five years, by the rise in seawater temperatures off Alaska, which has affected numerous other marine species. Dead shearwaters are just one result of this ecosystem collapse.

We all remember the fish kills in the Murray–Darling river system last year, but there has been less noise about the two more that occurred during January this year.

Then there are the insects, disappearing around the world at an alarming rate. Insects are the basis of many ecosystems, both as pollinators of plants, including cultivated crops, and as food for many vertebrates, such as birds and lizards. A collapse in some insect populations would result in a collapse in specialist insect-eaters, and then their predators. This may well be happening quietly now.

Back at home, I hardly need to mention the fires this season, whose long-term effects on wildlife is yet to be assessed but has clearly been colossal, probably resulting in the extinction of some species already under population stress.

These are just a few examples of the sort of thing we are seeing, or not seeing, the world over. Disaster is upon us — but at least our power bills might be going down.



The eruption of wet-season life: the ephemeral plants edition

Malcolm Lindsay

The explosion of life after the Man-gala wet-season rains never fails to impress.

This year's Man-gala wet season is nearly over and although it produced below average rainfall in Broome (469mm, compared to an average of 605mm), it was not as bad as last year, and at least the rest of the Kimberley got a good soak. But even with below average rainfall, the growth in life is still astounding. As the early naturalist to the region, Knut Dahl, put it: 'Never in my life have I witnessed a more striking development of flora and fauna than that which took place in this region as soon as the rainy season set in.'

From an arid and barren late-dry-season landscape, the Kimberley quickly transforms into a buzzing, wriggling, verdant and tangled race to grow, eat and breed before the next dry season. The most obvious things we notice are the new growth, flowers and fruits of the trees; the six-foot-high grasses; the sneaky progression of the weed vines; the restless snakes and goannas; the arrival of the migratory birds; and the incomprehensible numbers of baby burrowing frogs on Roebuck Plains.

This year, I have been stopping and stooping to appreciate the less obvious, the small ephemeral plants that quickly grow, flower and seed before the dry. And once you start looking, and realise you have to look even closer to see their often tiny flowers, you realise how diverse they are. Between our front yard and the park at the end of the street, I have recorded over 35 species of ephemeral plants that are new to me: from over ten different types of delicate peas (Fabaceae), scrambling pigweeds (*Trianthema* spp.) and spiderlings (*Boerhavia* spp.), to the yellow-flowered *Sida* and *Corchorus* species, of which many still await deciphering by botanists. Who knows, some may be new species. I am by no means the first to notice these, but they have been a first for me.

And I have been aided this year, not simply by my hens-tooth *Broome and Beyond*, but by a new app. Yup, there is an app for everything. I have been using the app called *iNaturalist*, which is used by amateur and professional naturalists alike to take photos of any observed species, make notes on the observation, log the GPS point, and then share it to an online community around the world who can help identify the organism you saw. Additionally, the app is linked to the *Atlas of Living Australia*, the Australian Government's online database of species sightings, so any sightings we make could come in handy for scientists down the track.

After taking photos of the plants with the app I then identify them using *Broome and Beyond* and other plant books for the region, but there are still a few I haven't quite worked out. Unsurprisingly, there have not been many people in the online community who could help me with identifying Kimberley ephemeral plants; there were indeed very few plants that had been logged in the Kimberley.



Corchorus pumilio



Indigofera hirsuta

iNaturalistAU

<https://inaturalist.ala.org.au>

So we will just have to build that community. I recommend downloading *iNaturalist* onto your smartphone. You can see the ephemeral plants I observed and check my ID, but most importantly, start recording all the plants, animals or even slime moulds you find. I will help you identify them if I can; you can help with mine.

Coronavirus and the Kimberley Nature Project

Malcolm Lindsay

We can't not talk about the Coronavirus. So how is it affecting Environs Kimberley's numerous projects supporting Aboriginal ranger groups?

We are of course heeding the government's restrictions, and respecting the wishes of Aboriginal communities to remain closed. Like most people, we are very concerned about the potential impact of the virus on Aboriginal elders and other community members. Aboriginal elders are so vital to our ranger partners and to our projects. Our conservation projects achieve better results when they combine the best of scientific and traditional knowledge, and those elders are the holders of that traditional knowledge.

So what does that mean for our team? The short answer is: a lot of uncertainty. Shire borders are closed and it appears remote communities will be in lockdown for a long time. While we can continue supporting Aboriginal rangers remotely, the uncertainty means it's likely project timelines will be blown out and we will require support to hold onto our gifted staff. We will of course be going online as much as possible and maximising desktop work.

So it is difficult times, but with a few tweaks we can still stay in touch with the beautiful Kimberley environment and do some good work. And you can too.

Here are some recommendations for EK members (ahem, based on government Coronavirus advice on the 3/04/2020):

1. **Get your garden sorted:** And this doesn't just mean the veggies — if you managed to hoard some seedlings from Bunnings — but also getting rid of the weeds. Nearly all environmentalists have some weed skeletons in their backyard closets; admit it.
2. **Weeding-fit:** We are allowed to do outside exercise with one mate who stays 1.5 metres away, right? Well, the new exercise craze out of Hollywood is called Removing Weed Vines Out Of Minyirr Park Whilst Walking The Dog. Stay beautiful, people.
3. **iNaturalist:** see my other article for more details. Take photos and geotag observations of organisms, try identifying them yourself, put them online to get help from the online community, realise no one in the online community can help you identify Kimberley plants, try and convince Phil Docherty and Tim Willing to get onto iNaturalist, write an article in the EK newsletter to build a Kimberley community on iNaturalist.

If you want any more information contact the Environs Kimberley team, or check out our website or social media.

What you can do to support our work protect the Kimberley during the COVID-19 crisis



EK Fundraisers cancelled

This year, like so many groups, we have closed our office and our staff members are working from home. Our two major fundraising events, the EK Art Auction and Concert for the Kimberley, have been cancelled. We are therefore turning to our members and supporters in the hope that you can help us out.

One way you could do this is to find or invent a new way of raising funds. Craig Phillips raised \$650 for EK's work through a Facebook birthday fundraiser. It doesn't have to be a birthday to raise money through FB; please check it out www.facebook.com/fundraisers/

Regular donors

Thank you very much to our regular donors for supporting our work. It's such a valuable way to contribute to protecting the Kimberley and helps us plan our work ahead. We need your support more than ever. If you're not yet a regular donor, please consider just \$5 a week. It's easy and tax-deductible; just go to our website www.environskimberley.org.au/donate_monthly

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 Tess at community@environskimberley.org.au or 0476 146 614 for advice on making a bequest to EK.

Workplace Giving

If you have looked for an easy and effective way to financially support Environs Kimberley on a regular basis, look no further: Workplace Giving is the solution!

The good news is that, once it's set up, the benefits for you and Environs Kimberley are far greater than just the cash in the bank.

Please contact Christine at finance@environskimberley.org.au for advice on how to do this.

Vale Kevin Smith

The staff, board and members of Environs Kimberley were shocked and saddened to learn of the sudden death of our good friend, Kevin Smith, on February 25.

Kevin was an advocate for nature and justice and had a great sense of humour. He was a quiet achiever for the natural environment, both in his professional life and as a volunteer.

He coordinated the Kimberley branch of Conservation Volunteers Australia, and Broome's Turtle Monitoring program. He remained a champion for turtles, and was out monitoring their nests shortly before his death.

Kevin was an unfailing volunteer for our Seagrass Monitoring Project, always helping out while taking photos of the creatures that live in this remarkable ecosystem. He had a keen eye for the delicate and unusual and he was never to be seen without his camera.

Kevin sat on the EK Board of Management for a number of years, and then as a member of the Gift Fund Committee. He was always present at EK events such as the Art Auction, where he'd often photograph the night for us. He would regularly attend protests and demonstrations to protect the Kimberley and the environment generally, be it for James Price Point or action on climate change.

Kevin specialized in taking images of wildlife, and early risers might meet him on bush tracks or down on Reddell Beach, looking for subjects to photograph.

In 2019, with friends, Kevin opened a shop in Chinatown, 'Rockpool', selling local arts and crafts, so serving the community as well as making a modest income.

People who knew Kevin will miss him sorely. He leaves a big gap.



New Staff Members



Jesse Alai, Project Officer

Jesse was born and raised just outside Brisbane, QLD, and moved to Perth, WA, during his schooling. It was a nature-filled childhood, which inspired his undergraduate studies in Zoology and Conservation Biology at the University of Western Australia.

After graduating in 2018, Jesse moved to Broome and initially worked in a pearling hatchery. He has become extensively involved in community and youth work around Broome. Starting as a volunteer for EK, Jesse was asked to step in to fill the role of managing the Broome Community Seagrass Project.



Hamsini Bijlani, Project Officer

Hamsini grew up in southern India, where she completed a Bachelor's degree in Zoology, Botany and Chemistry, and studied human-wildlife conflict near her home-town of Bangalore. She moved to Australia in 2016 to complete her Master's

degree in Conservation Biology at Macquarie University, Sydney. She was then employed as an ecologist and consultant for WWF-Australia's Kimberley Program. She worked with several Aboriginal ranger groups on a variety of projects, including one dedicated to protecting Wiliji (West Kimberley race of black-footed rock-wallaby) with Nykina Mangala Rangers on their Country. Hamsini has joined Environs Kimberley to work on the Dampier Peninsula Monsoon Vine Thicket and Karajarri Pirra Warlu Projects.

New Board Member



Cassandra Douglas-Hill, Board Member

Cassandra is social entrepreneur and business owner of True Leaf Farm, an aquaponic leafy-green and microgreens farm in Broome. She is passionate about the connection between the environment, health

and sustainable local food systems. With an academic background in Environmental Science and Public Health, coupled with significant practical experience in farming, alternative food systems and community-based food movements, Cassandra is keen to support the development of thriving and sustainable local food production, which in turn supports healthy people and a healthy environment.



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Dampier Peninsula MVT Recovery Team to go National

Hamsini Bijlani

The annual Dampier Peninsula Monsoon Vine Thicket Recovery Team workshop took place on Bardi Jawi Country on March 16 & 17. It was a very hot and sunny morning as Malcolm, Nicole (from DBCA) and I arrived at the Bardi Jawi PBC office in Ardyaloon. We were joined by the Yawuru Women Country Managers and Nyul Nyul Rangers, and were welcomed by the Bardi Jawi Aamba and Oorany Rangers.

The first item on our agenda was to collectively make decisions regarding the registration of the MVT Recovery Team. The group decided to apply to be registered as a National Recovery Team. If successful, we would be only the second Indigenous-led National Recovery Team in Australia. After deciding on the terms of reference for the recovery team, Bibido and Zac from the Bardi Jawi Aamba Rangers took us out on their boat to see their Country. Just as we were about to start our boat trip, we were greeted by the sight of a group of lemon sharks in the water. It was a thrilling experience to spend the afternoon zooming around in the shimmering turquoise-blue water and see the stunning shades of orange of the rock formations on Bardi Country from the sea.

The next morning Debbie, the Bardi Jawi Oorany Ranger coordinator, took us out on a walk in Kooljaman, one of their weeding and revegetation sites. It was great hear her talk about all their hard work and to walk through the dunes and see all the native vine thicket trees that they had planted. After a refreshing and educational start to the day, we headed back to the PBC office to work out our Monsoon Vine Thicket monitoring strategies and annual plans. One of the main themes of the workshop was monitoring, since it is essential for the rangers to know if their years of work on fire, weeds and revegetation are actually paying off.

There was an atmosphere of cooperation and camaraderie throughout the workshop, and it was clear that everyone is very keen to share knowledge and work together in managing these ecologically and culturally important vine thickets.



Debbie Sibosado (Bardi Jawi Oorany Ranger Coordinator) showing us their revegetation work in Kooljaman

Time for growth

Alan Gray

I remember, many years ago, in the EK newsletter, Peter Mitchell saying that Wirrburu is his favourite season. The warmer days and less-frigid winds of September make that easy to appreciate.

Perhaps Wirrburu (roughly May in most years) is a second fave season; the humidity from a long, humid wet season should be fading by now, with cooler nights before the strong cold winds of Barrgana to follow.

Wirrburu is the perfect time to start a seasonal veggie garden. The soil temperature is dropping, and we notice this change when some of us softies (no names) want to add hot water to our showers.

Asian veggies grow better in this 'shoulder' season of early May than European, cold-climate veggies like cauliflowers, cabbage, carrots and broccoli.

Preparing your garden bed can be as simple as smothering your grass or weeds with builders' plastic, covered with a thick layer of free mulch from the tip, for a couple of weeks till the weeds are well and truly dead. If you soak the soil, then turn it over with a garden fork, then add plenty of compost, you're ready to plant.

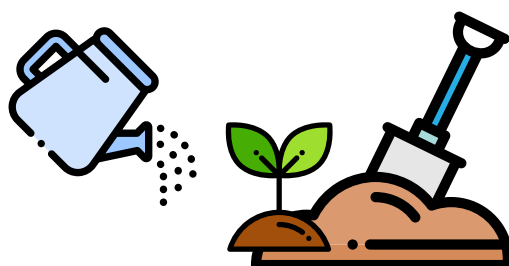
You can start with veggies like roquette (it really does take off like a rocket, and should germinate in two days if you keep the seedbed moist), mizuna and basil. Follow that with bok choy, wombok, pak choi, and cucumber seeds.

Next comes the all-time bombproof germinator: snake beans. These climbers don't need a trellis; sow them 10 cm apart in rows, and they'll produce well, smother any weeds, and — because they're leguminous — they'll drag nitrogen out of the atmosphere and make it available via their roots to crops that follow. Soak the seeds for 12–24 hours before you plant them.

By late May you might be ready for the European brassicas mentioned above, plus tomatoes, and pretty much anything else you can think of. Coriander seeds will germinate as soon as the soil temperature drops to 22°C.

To grow carrots, make sure you pick an old-fashioned variety, keep the bed 1000 per cent weed-free, thin savagely by the time they're 5 cm high, and mulch them heavily. Carrots hate weed competition, other carrots nearby, and drying out. We cover our carrot bed with a nasty old polyester bed sheet to keep it all moist for the first 8–10 days. This also kills weed seeds that germinate faster than carrots. Have fun.

For a guide to growing food-plants in Broome, go to our website and download the 'Broome Food Planting Calendar' (www.environskimberley.org.au/broome_food_planting_calendar), kindly made available by Alan Gray. Ed.





Enhancing native food producers and enriching ecosystems

Ayesha Moss

The heavy hot months of January and February within Mankala are a time when bush fruits are ripe and abundant. Despite the heat and humidity, it was a welcome opportunity to go out on country with Karajarri Rangers and cultural advisors to collect seeds earlier this year.

We visited the Swale Thickets of Gourdon Bay, a stretch of bushland that sits between Wintirri (coastal dunes) and Pirra (pindan woodland). The swale thickets are a place of abundant bush tucker and medicines. We collected several buckets of Nyaminyari (*Terminalia ferdinandiana*) and handfuls of Makapala (*Marsdenia viridiflora*), Jikali (*Bauhinia cunninghamii*), Kuwal (*Flueggea virosa*), Mintirjina (*Persoonia falcata*) and Jilarlka (*Solanum diversifolium*).

The seed collection is part of our project 'Enhancing Native Food Producers and Enriching Ecosystems', funded through the National Landcare Program: Smart Farms Small Grants. We are working with the Karajarri Rangers and Karajarri Traditional Lands Association to:

1. Cultivate two sites on Karajarri country:
 - a. A bush tucker garden at the Karajarri-owned Purnturpurntur (previously Port Smith Bird Park) in alignment with the site's concept plan
 - b. A savanna enrichment planting on Karajarri land to enhance existing bush tucker and medicine resources
2. Support the development of a wattleseed product by mapping the resource, establishing sustainable harvest principles and working with partners to take it to market.
3. Offer training in horticulture with experienced and skilled lecturers at North Regional TAFE to design and prepare gardens and landscapes, and grow and nurture edible and medicinal plants in consultation with cultural advisors and elders.

It was important for Karajarri people that we collect provenance seed from strong healthy stock to ensure the cultivated plants are well suited for the local environment. It is this direction and involvement from elders and rangers that will ensure the science we use is appropriate and welcome. Ultimately, we hope the project helps establish sustainable economic opportunities for Karajarri people in the future.



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Photo: Bobbie Chew Bigby

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Nyul Nyul Rangers Working With Changes

Workplans and schedules were almost complete,
put down on paper and looking quite neat.

IPPs set, and fire plan done, let's get out on country
and have us some fun.

Just as the Rangers were getting in gear,
this new kind of virus began to appear.

Now most of us heard when it began to appear,
it affected the world with a new kind of fear.

The Rangers of Nyul Nyul, they had to change plans,
to protect the people that live on this land.

They set up a roadblock without being told,
to protect the sick, the young and the old.

Now workplans have changed and training's on hold,
let's hope that the virus is not worse when it's cold.

The Rangers are doing what work that they can,
still trying to do the jobs from the plan.

Like fire and weeding or looking for birds:
the beautiful Gouldian, if he can be heard.

Now things are changing across the land,
go back to your country — don't die in our sand.

People are now all coping with change,
some getting confused and acting quite strange.

But Rangers of Nyul Nyul they just carry on,
hoping that soon this virus is gone, trying to do
the work that's been planned while protecting their
people that live on this land.

Neil Hamaguchi



Vale Peter Fry

We at Environs Kimberley were saddened to learn
of the death of our long-term supporter, Peter Fry, in
October last year. His stalwart partner, Jo Vallentine,
sent us this tribute:

'Peter loved the ocean, anywhere, and he especially loved the
Kimberley, in all its magnificent colours and variety. He was
very aware of the risks to its ecological integrity and would
have been happy to know that some of his friends donated to
EK to help its ongoing work to protect this amazing part of our
beautiful country.'

Our warm wishes and sympathy go to Jo and to other
members of Peter's Family, and our thanks to all who donated
in his memory.

Pindan Printing closing down



Environs Kimberley was dismayed to hear that Pindan
Printing, which has served us so well over many years,
is closing down. Readers will remember that we
farewelled Nunzio, printer extraordinaire, last year,
and it was heartening that his family was able to keep
the printing press going for a while at least. However,
they have finally decided to call it a day.

EK management and staff give heartfelt thanks to Sue
and her family for all their support in the past, and we
wish them well. Their service will be sorely missed.

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