



TERRITORY NATURAL RESOURCE MANAGEMENT 2023 CONFERENCE

21-23 NOVEMBER DARWIN

PROGRAM



You are welcome to take notes, photos and are encouraged to share your experience.



Welcome to the **2023 TERRITORY NATURAL RESOURCE MANAGEMENT CONFERENCE**

We are pleased to bring you this three-day event filled with inspiring, informative and collaborative presentations, projects and workshops. We hope you enjoy this opportunity to meet and catch up with natural resource managers from across the Territory, and that you take away some valuable insights and learnings from the event.

VENUES

The 2023 Territory Natural Resource Management (TNRM) Conference and NT NRM Awards are being held at the Darwin Convention Centre on the Darwin waterfront.

Darwin Convention Centre, Stokes Hill Road, Darwin

The conference welcome networking function is being held at Wharf One Restaurant on the Darwin waterfront.
Wharf One, 19 Kitchener Drive, Darwin

All attendees are to present to the registration desk on arrival for check-in.

THANK YOU

We would like to thank the following organisations that have continually supported and assisted TNRM in creating the professional and quality event we proudly present to you.

2023 TNRM Conference Partners, new and returning. Your support is absolutely essential to the delivery of the conference and we thank you sincerely! A full list of our Partners is available at the back of this program.

Darwin Convention Centre Thank you to the whole team! We enjoy returning to this venue every year for your professionalism, creativity and hospitality.

Hodge Environmental Kate Hodge consistently provides a fantastic design service, which coupled with her understanding of the NRM space has helped to elevate our conference to a new level through the development of the high-quality design of our posters, flyers, banners and programs.

Charlie Bliss for his excellent photography - we thank him for his hard work and creativity to ensure our event is captured perfectly.

Top End Print The friendly and reliable printing team who meet every deadline in the production of our banners, posters and programs.

Enchanted Moments are responsible for creating the beautiful atmosphere in the dressing and decorations of the NT NRM Awards Gala Dinner.



 08 8942 8300

 events@territorynrm.org.au

 www.tnrmconference.org.au



7.30AM REGISTRATIONS OPEN

All conference attendees please make your way to the registration desk on arrival to collect your delegate information and check-in to the event.

We kindly ask you to keep conference lanyard and name tag visible at all times. You may be asked to show this on entry to a workshop, due to limited registered places.

8.30AM – 12.00PM MORNING WORKSHOP SESSIONS

Grant Writing for NRM

This grant writing workshop is ideal for any individual or organisation wanting to understand more about grant funding and writing a compelling application. Participants will discover effective research techniques to seize opportunities, acquire the ability to structure winning proposals, prepare and deliver compelling business cases, and explore how to use AI as a writing tool.

The workshop will cover topics including:

- An overview of grants and where to find them;
- Get your organisation ready;
- Practical grant writing tips and project planning;
- Design tips with Canva;
- Understanding AI for grant writing;
- Acquittals and record keeping - why this is important?

This workshop has been created specifically for community-based non-profits and Aboriginal organisations who are applying for grants occasionally. Using exercises to explore topics, we will develop a project plan during the session in addition to giving helpful guidance on how to present work for submission.

Presenter

Presented by Sally Clayton of Mint Key Pty Ltd, a Greater Darwin based business that specialises in grant writing. Sally has over twenty years experience assisting government, commercial and not-for-profit sectors. She uses clear language and understands the Territory's logistics and challenges; and, most importantly, where to find the money.

What to bring

It would be useful to bring a laptop to this workshop.

Sharing the Load: Exploring Planning and Communication Strategies to Support Ranger Coordinators

Ranger Coordinators and Senior Rangers, this workshop is for you! We recognise the increasing complexity and challenges of your job managing your ranger team, balancing family and community expectations, funding and reporting, stakeholder engagement and requests, looking after equipment and vehicles and all the other challenges of working remotely.

This workshop will bring together Rangers and Coordinators to share ways to develop work plans and strategies to support bigger picture organisational and healthy country plans and goals, and effective ways to communicate these plans to ensure everyone understands and is working towards the same outcomes.

Plans that are developed with strong community consultation are great for guiding direction and decision making as well as defining roles and responsibilities. Used and shared in the right way, these plans may help take the pressure off the coordinators or rangers having to always be on the frontline of decision making.

This workshop aims to provide a space for rangers to support one another and inform best ways to support ranger coordinators over the longer term, including through identifying specific training and knowledge sharing needs.

Please come prepared to talk, bring your questions, big and little, and share tips and tricks around what has worked for you and your group.

Presenter

This workshop will be facilitated by Jaemie Page, Batchelor Institute, and Rachael Thurlow, TNRM, who delivered the 2022 Ranger Coordinator workshop. Jaemie and Rachael have been working together for the past 5 years in developing and providing relevant training and support to rangers across the Top End. Both have observed the increasing challenges ranger coordinators and senior rangers receive from internal and external pressures.



Sharing your Story to Look After Country

There are so many valuable stories to tell about what people are doing on Country, including; the good work people are doing to care for Country, cultural information that is important to pass on, teaching or showing others something new and sharing experiences so that others can learn. This workshop will work with rangers and land managers to help them develop a storyboard to structure their message – using sequences of information to effectively create impactful stories around looking after Country, using everyday equipment. The created stories can be easily shared with other people, including rangers, board members, funding bodies, on social media platforms and with other interested organisations.

The workshop will focus on 3 different topics:

1. How to tell your story: examples, tools and equipment, skills, introduction
2. Creating your story: developing your story board
3. Sharing your story: presenting the 'final' product to the audience Come ready to get creative!

Presenter

This workshop will be facilitated by Territory NRM staff members Susanne Casanova and Diego Alvarez. Facilitators have a wide variety of skills that will assist participants in aligning their thoughts in how to create an engaging story board.

Unlocking Biodiversity Insights: Data and Information

Explore the power of biodiversity data at the insights workshop! Discover a wealth of information available through NRM Maps, the NTG open data portal, NT Flora and other invaluable sources. Learn how to access, interpret, and apply this data. Engage in hands-on activities to explore real-world applications and collaborate with experts. Join discussions to inform and help us identify your data needs and shape the future of biodiversity data utilization. This workshop is a must-attend for land managers, conservationists, researchers, and policy makers looking to enhance their decision-making processes. Register now to secure your spot and be part of the future of sustainable land management and conservation.

Presenter

Information & Advice Team: Our multi-disciplinary expert team from DEPWS includes spatial scientists, data managers, the NT Herbarium, bio-cultural knowledge curators, and the development assessment team. Join our workshop to tap into their collective wisdom and gain invaluable insights for informed land management decisions.

What to bring

It would be useful to bring a laptop to this workshop.

12.00PM – 1.00PM WORKSHOP NETWORKING LUNCH

Day 1 Workshop attendees are invited to join us for a fully catered lunch to meet and network with fellow delegates, presenters and event partners.

1.00PM – 4.30PM AFTERNOON WORKSHOP SESSIONS

Managing and Monitoring Feral Cats

This workshop will provide participants with an overview of available options for feral cat management, why some approaches work in some locations and not others, methods for monitoring and evaluation, and resources and skills required for implementation.

The overall aim is to bring people together to share their experiences, and to provide land managers with the information and tools they need to get started in feral cat management and/or monitoring.

Presenter

Speakers will include Indigenous land managers, other land management practitioners, university researchers and government scientists.



Navigating the Data Jungle: Finding what works for Rangers

With the ever-increasing roles and opportunities for rangers comes ever-increasing expectations of data to be collected and so many different ways to collect it. But whose story are we telling with all this data? Whose problems are we aiming to solve? Who benefits from this work? Where does the data go and who owns it? Are the results communicated back to the rangers? Data collected often ends up lost in the clouds as trends, people, funding and projects come and go. Data management systems often break down because people end up confused as to what, why, how it should be done and projects finish or key people leave. In this workshop we aim to provide the opportunity for rangers to share their experiences with data management; the tools they use, the help they get, what has worked, what has not worked and what is missing. We want to explore cultural understandings of data, how people connect with the landscape, ways of reading and responding to environmental indicators and how these stories are communicated. Most importantly we aim to situate rangers at the centre, promote processes that work for them and support their aspirations through all stages of the data cycle: planning, collection, analysis, response, review, communicate.

Presenter

This workshop will be facilitated by Jaemie Page from Batchelor Institute (BI) and Rachael Thurlow, from Territory NRM. BI and TNRM have been working together to develop shared approaches to collecting, managing, and communicating data in line with the needs of rangers and their community driven projects and to identify and build the digital literacy skills needed.

Savanna Burning, Carbon Opportunities and other Nature Based Economies

Savanna burning projects have had a huge effect on improved fire management in north Australia. In this workshop we will explore the adoption and application of Savanna Burning fire management techniques, learn about carbon, and work together to characterise the benefits to country and people. It is now time to expand this work to broader ecosystem services also known as Nature-Based economies. The Australian Government has introduced a Nature-Repair Market Bill (2023) to create a framework for a voluntary national biodiversity market. We will discuss what kinds of frameworks exist worldwide, and how we can co-develop culturally appropriate nature-based economic frameworks that suit Indigenous aspirations, needs and value systems.

Presenters

The workshop will be presented by the Research Centre for the Environment & Livelihoods (RIEL) including the Darwin Centre for Bushfire Research (DCBR) at Charles Darwin University:

Dr Kamal Sangha

Dr Andrew Edwards

Dr Clément Duvert

Dr Ronju Ahammad

Dr Rafael Bohn Reckziegel

4.30 PM

CLOSE OF THE DAY'S PROGRAM

6.00PM – 7.30PM

CONFERENCE WELCOME NETWORKING FUNCTION

Wharf One Restaurant, Darwin Waterfront

Join us for an informal get-together for attendees to network and catch up with friends and colleagues from across the Territory, all while overlooking a view of a beautiful sunset on the water.

A complimentary drink will be provided on arrival. Canapés will also be served for the duration of the event.

Registration required.



CONFERENCE DISPLAY BOOTHS

There will be a mix of informative and interactive displays throughout the day. Make sure you take the time to have a look around, gather information, meet new contacts and speak with our valued sponsors. Stop in to say hi and have a chat to each of our booths:

- Batchelor Institute
- Inspired NT
- Marine Parks Australia
- Northern Territory Government
- NT Heli-Ops
- PIGBAITTA
- Research of Environment and Livelihoods, Charles Darwin University
- Territory Natural Resource Management
- Trans Tank International

ABC Country Hour – Broadcasting live from the Conference

Matt Brann will be joining us to broadcast live from the conference, keeping everyone up to date with the interesting presentations and stories from around the Territory.

Matt will be chatting with presenters, conference partners and delegates. ABC Country Hour broadcasts rural news and events from the Northern Territory and the nation every weekday from 12:30pm.



POSTER PRESENTATIONS

Please join the authors by the poster displays inside the auditorium during the scheduled times:

Poster Session: 10.00am - 10.15am

Poster Session: 2.15pm - 2.30pm

Poster	Presenter
Djurrubu Weed Management through Salvinia and Weevil Biocontrol and the Gamba Grass Eradication Project	<i>Djurrubu Rangers, Gundjeihmi Aboriginal Corporation</i>
Drafting the Ghost Bat National Recovery Plan. How Can You Help?	<i>Nicola Hanrahan, Charles Darwin University</i>
EcoPlots - Site-based survey data integration platform	<i>Dr Donna Lewis, TERN Ecosystem Surveillance</i>
Healthy Soils NT	<i>Jack Farthing, Territory Natural Resource Management</i>
Indigenous Ranger Biosecurity Program	<i>Natalee Leader, Kieran Sekuloff, Gayle Heron and Kristen Sierke, Department of Agriculture, Fisheries and Forestry</i>
Managing Gamba Grass for Biodiversity Conservation	<i>Susanne Casanova, Territory Natural Resource Management</i>
New discovery of central rock-rats	<i>Cleveland Kantawara, Central Land Council Ryan Raggett and Shannon Palmer, Anangu Luritjiku Rangers Andrew McVinish, Territory Natural Resource Management</i>
Sharing the Yolŋu Knowledge Framework for Dhimurru and Yirralka Rangers - Q&A Session	<i>Samantha Muller, Djäwa Burarrwaŋa, Mawalan Marika, Rrawun Maymuru and Wulpunda Gumbula, Dhimurru Aboriginal Corporation Lachlan Sutherland, Makungun Marika and Yinmala Gunmana, Yirralka Rangers, Laynhapuy Homelands</i>
Supporting Land Management Practice Change	<i>Rowena Eastick and Susanne Casanova, Territory Natural Resource Management</i>
Targeted surveys for the white-throated grasswren (<i>Amytornis woodwardi</i>) in the Arnhem Sandstone Escarpment	<i>Dr Kelly Dixon, Territory Natural Resource Management</i>
Territory Conservation Agreement Case Studies	<i>Matthew Fogarty, Territory Natural Resource Management</i>
Threatened species research and monitoring in Kakadu National Park - Building lasting partnerships for improved conservation outcomes	<i>Luke Einoder, Parks Australia, Kakadu</i>



7.30AM REGISTRATION, WELCOME TEA AND COFFEE

If you have not already registered on Day 1, please make your way to the registration desk to collect your delegate information.

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8.30AM – 9.00AM COMMENCEMENT AND WELCOME

Welcome to Country – Cyan Sue Lee

Conference Welcome Address

9.00AM – 10.00AM SESSION 1

Collaborative Sea Country Management in the North Marine Parks Network

Deklyn Townsend, Parks Australia

David Barrett, Namulcha Aboriginal Corporation

This presentation showcases the collaborative approach taken to managing the North Network of Australian Marine Parks (AMP). We'll highlight current and completed projects in AMPs with a focus on projects in Sea Country that deliver mutual benefits, including a case study on collaborative work at Limmen Bight and Limmen Marine Parks in the South West Gulf of Carpentaria.



Marine Debris Management

Paul Ellis, Dhimurru Aboriginal Corporation

The presentation will be highlighting some of the challenges we face in collecting and surveying the debris, types of marine debris clean-up activities Dhimurru undertakes, data entry and mapping that we use in marine debris management and a few exciting end of system solutions for the plastics that are planned for the near future in the region.



Best practice principles for employing women caring for Country

Strong Women for Healthy Country Network

Hundreds of women caring for Country across the Northern Territory have said they would feel safe and supported at work, if they have access to respectful workplaces, dedicated resources and training, flexible work schedules, and representation in decision-making. Over the course of multiple Strong Women for Healthy Country Forums, women recognised big differences in the capacity of their employing organisations and the circumstances under which they operate. Understanding that different approaches will therefore work best for different employers, women have worked to compile a range of different approaches for employers to support women caring for Country.

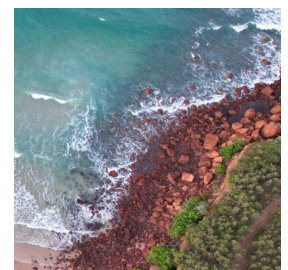


Sharing the Yolŋu Knowledge Framework for Dhimurru and Yirralka Rangers

Samantha Muller, Djäwa Burarrwaŋa, Mawalan Marika, Rrawun Maymuru and Wulpunda Gumbula, Dhimurru Aboriginal Corporation

Lachlan Sutherland, Makungun Marika and Yinmala Gunmana, Yirralka Rangers, Laynhapuy Homelands

Dhimurru and Yirralka Rangers have been working together for the last two years to develop the Yolngu Knowledge Framework (YKF). Linked through our kinship, we have interviewed over 40 elders from over 14 clans groups to develop formally new, yet very old, directions for our work. Our key new directions recognise and privilege Yolŋu ways of managing Country, as Yolŋu have always done since time immemorial. There are three foundational guiding new directions for our organisations. The first new direction is to rename the word 'ranger' to 'djäkami wäŋawu' which means carers of Country. By recognising that we are carers of Country, the framework for the work we do changes also. The YKF recognises the role of ceremony and hunting as part of djäkami wäŋawu work. The YKF has been developed as a series of videos that will be available on the www.yolnguknowledgeframework.com.au website to share our work more broadly.



10.00AM – 10.15AM POSTER SESSION

10.15AM – 10.45AM MORNING TEA

10.45AM – 12.00PM SESSION 2

Looking into the fire story. How does fire affect walpajirri (bilbies) and their predators?

North Tanami Rangers, Central Land Council

Hayley Geyle, Territory Natural Resource Management / Charles Darwin University

The walpajirri (bilby) is an iconic Australian animal of ecological and cultural importance. Once widespread across arid and semi-arid Australia, the walpajirri has declined to just 20% of its original extent, and now occurs only in a few isolated populations. One of these populations is in the Tanami Desert, which continues to decline and contract northwards. It's possible that walpajirri are declining in response to predation by introduced predators (cats and foxes) and changing fire regimes, but the extent and interactive effects of these threats are not well understood. In this presentation, we will talk about how we used modern survey techniques and Warlpiri knowledge to investigate the impacts of Warlpiri-led fire management on walpajirri and their predators.

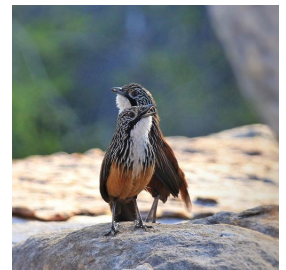


Cross-cultural conservation - Combining balanda science and Bininj knowledge to protect a threatened Stone Country endemic species

Dr Kelly Dixon, Territory Natural Resource Management

Warddeken Rangers

Many species of conservation concern are difficult to survey and often occur in remote and hard to access areas. One such species is the white-throated grasswren (yirlinkirrkirr/nyirnyirr), a threatened ground-dwelling bird susceptible to large fires that lives amongst the rocky areas and old spinifex in the Arnhem Plateau Stone Country. Over the past couple of years, Territory NRM ecologists have been collaborating with Traditional Custodians, Indigenous rangers, and other scientists to survey and undertake threat management activities for the species.



This presentation will outline the ecological niche model and associated map that we built to characterise habitat conditions under which the yirlinkirrkirr persists, how the map was used as a tool for participatory site selection planning sessions with key Traditional knowledge holders, other custodians and rangers across the Stone Country, and will showcase an example of how TNRM and Warddeken Land Management work together to survey for yirlinkirrkirr in the Warddeken IPA. We will explain how new and emerging technology was used to survey for the species, and how data collected are informing fire management that contributes to conserving yirlinkirrkirr habitat in the Warddeken IPA.

Searching for the Top End's most at risk reptile - The Arnhem rock skink

Emily Hoffmann and Dr Kelly Dixon, Territory Natural Resource Management

Luke Einoder and Billy Ross, Kakadu National Park, Parks Australia

Anthony Griffiths and Peter McDonald, Northern Territory Government

Chris Jolly, Macquarie University

Brett Murphy, Charles Darwin University

Brenton von Takach, Curtin University

Detecting and monitoring rare or cryptic species can be challenging, particularly in harsh environments such as the Australian monsoon tropics. The Arnhem rock skink (*Bellatorias obiri*) is a shy rock-dwelling species that occurs in rugged and difficult-to-access areas of the Arnhem escarpment. Since the 1970s there have been less than 40 occurrence records across 13 sites, and previous targeted surveys have detected very few individuals. The species was recently named as one of Australia's most threatened vertebrates, however, current distribution and population trends are unknown as there have been no effective methods to detect or monitor them.



Consequently, management actions for this Endangered species are currently limited. Working closely with the Traditional Owners, we conducted targeted surveys for the Arnhem rock skink at historical locations across Kakadu National Park using two emerging and non-invasive survey methods: camera trapping and environmental DNA. Here, we will discuss our findings on survey methodology for detecting this elusive and seemingly rare species, as well as new insights into their distribution, ecology and behaviour. These findings not only have implications for the management of this threatened species going forward, but more broadly for monitoring other cryptic reptiles or crevice-dwelling fauna.



**A collaborative approach to win the Gamba fight -
Working together to protect Country against Gamba grass**

Diego Alvarez Cortes, Territory Natural Resource Management

This presentation highlights the remarkable collaborative efforts undertaken between 2022 and 2023 to eradicate Gamba grass from the Top End in the Northern Territory. Through coordinated collaboration among diverse stakeholders, including multiple First Nations ranger groups, this program achieved significant milestones in a relatively short time frame. This presentation serves as a thank you to everyone who contributed to this tremendous effort and aims to share some of the notable achievements.



**Working towards eradication of a historic gamba grass infestation at
Mudginberri, Mirarr Estate and Kakadu National Park**

Djurrubu Rangers, Gundjehmi Aboriginal Corporation

Mudginberri is a locality where gamba grass has persisted since being planted in 1970's to support the Mudginberri stations buffalo, prior to the area being included in Kakadu National Park.

To address the persistence of gamba grass in the landscape at Mudginberri, the Djurrubu Rangers, Northern Territory Weed Management Branch, TNRM and Parks Australia worked collaboratively over the period from 2020 – 2022 to identify best practice methods needed to underpin a successful eradication program for the site. Seasonal ground access constraints particularly needed to be overcome to enable rangers to reach the patches before seeding and being burnt.



Djurrubu Rangers have built their capacity over the years to be able to implement an extensive and highly successful 2023 eradication program. This included the fine scale gamba grass surveys to create base line data over 30,866Ha of landscape and the treatment of all 150 identified sites.

12.00PM – 1.00PM LUNCH

1.00PM – 2.15PM SESSION 3

Effective feral pig management - It's all about people

Heather Channon, National Feral Pig Action Plan, Australian Pork Limited

The adaptiveness, mobility, high reproductive rate and intelligence of feral pigs, combined with their widespread distribution across Australia, presents huge challenges in their management. The National Feral Pig Action Plan 2021-2031 aims to guide and support land managers to work together to deliver coordinated, effective and humane best practice management of feral pigs. The most successful control programs are coordinated, require land managers to work together for many years, cover large areas and strategically use the right best practice management method at the right time and at the right scale. However, achieving this in practice is not easy. This presentation will discuss the importance of having strong land manager networks and partnerships in place to drive the adoption of adaptive best practice management and reduce impacts caused by feral pigs.



High Pathogenic Avian Influenza - Risks for Australian Wildlife

Joanne Walker, Wildlife Health Australia

High Pathogenic Avian Influenza (HPAI) is an infectious disease that affects birds and some mammals (cats, dolphins and sea lions). The global situation remains dynamic and is having devastating impacts on a wide range of bird species. As migratory birds return from the northern hemisphere to Australia (September to November), there is likely an increased risk for an introduction of HPAI into Australia compared to previous years. This presentation will provide: an overview of HPAI, (what it is and how to recognise it); a snapshot of the avian influenza nationwide surveillance system; and provide advice for the NRM workforce to equip them with the necessary knowledge to prepare for a potential HPAI outbreak, biosecurity risks and risks to health and wellbeing, where to find more information and how to report outbreaks.



Darwin Harbour – A place like no other and the challenges of being a threatened shorebird

Dr Amanda Lilleyman

Gabrial Millar, Larrakia Land and Sea Rangers

There is nowhere else across the NT coastline like Darwin Harbour. Most of the Territory human population live within 20 kms of the harbour. It is a service and export hub, and connects Darwin and the NT to the rest of the world. It is an area with high biodiversity, tourism and recreation, and ongoing plans for development that will impact wildlife that depend on healthy ecosystems.

For the critically endangered Far Eastern Curlew, a shorebird that migrates to Darwin from Siberia every year, it faces many challenges as it navigates the tide cycles to find enough food and places to rest. How can we ensure that the needs of this bird are not lost to development in Darwin Harbour?



The evolution of decision making in Agriculture

Munro Hardy, Mutual Food and Fibre

How the digital ecosystem has influenced and supported our approach to decision making. AgTech is helping the industry to reach its full potential and supporting it to achieve the 2030 national targets by bringing better solutions to fuel sustainable growth. We are achieving this through reducing our carbon footprint, and helping other producers to lower theirs by improving weight gains of cattle and reducing methane production.



Hewitt Food For The Future Project - Sustainability and Australia's Red Meat Industry

Nathan Moore, Hewitt

Hewitt's ambition to be the worlds leader in sustainable meat food products is built on the organization's critical success factors: People, Environment, Product and Performance. With the support of MLA, Hewitt is managing a supply chain wide sustainability project to enhance these success factors, The Food for the Future project.



2.15PM – 2.30PM POSTER SESSION

2.30PM – 3.00PM AFTERNOON TEA

3.00PM – 4.00PM SESSION 4

My Climate View - Caring for Country

Tammy Hunter, Bureau of Meteorology

My climate view with an Indigenous lens. 60 years of climate history and 100 years of climate projections. What does this mean for mob caring for country for future generations. Seasonal indicators are changing. what will the climate look like and how will you manage country with this knowledge?



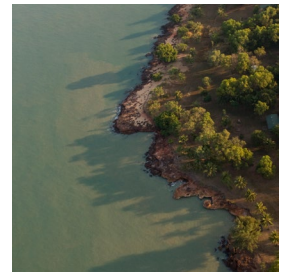
Fauna surveys of the Pellew Islands and Maria Island - A collaboration between the Li Anthawirriyarra Sea Rangers and NT Parks and Wildlife

Roslyn Kerr, NT Parks and Wildlife

David Barrett, Li Anthawirriyarra Sea Rangers

Between 2020 and 2023, the Li Anthawirriyarra Sea Rangers, Northern Territory Parks and Wildlife undertook fauna surveys of three islands in the Sir Edward Pellew Archipelago and Maria Island which sits to 110 kms to the west. These surveys were supported by Desert Wildlife Services and Terrain Ecology. The surveys primarily aimed to assess the small mammal assemblages on these islands while assessing the presence of all other fauna species and assessing the presence of feral species to guide future management. They involved boats, baits, bandicoots, bruises and beautiful sunsets!

This presentation outlines the work undertaken at each island, the fauna species detected and how we aim to protect the islands in the future through ongoing management.



Soil Highlights

Jack Farthing, Territory Natural Resource Management

This presentation provides a overview of the accomplishments and initiatives in soil extensions over the past year. It highlights notable achievements, such as the Soil Your Undies challenge, which was a unique way of engaging the community about soil health. Additionally, the presentation delves into the impact of the Sustainable Soils Skill Set Training Program, which equipped Territorians with the knowledge and skills necessary to foster resilient soil practices.



No-till legumes for climate smart agriculture in the Top End

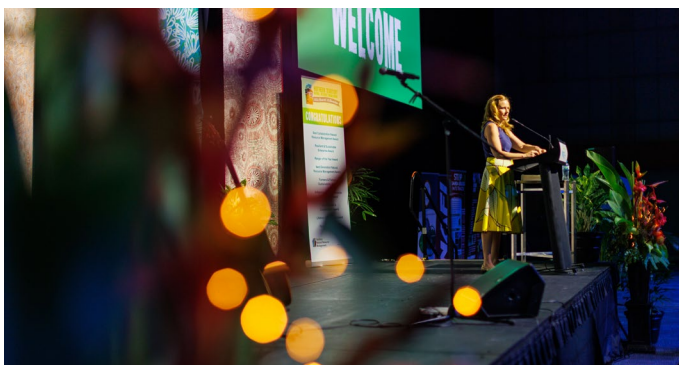
Fergal O’Gara, Northern Tropical Agriculture

Legumes convert nitrogen gas from the atmosphere into forms available for plant uptake from the soil. Farmers can use legumes to get ‘free’ nitrogen without needing to use synthetic fertilisers. A Smart Farms Small Grants Project enabled a number of Top End farmers to sow legumes into existing pastures using no-till planting machinery. There was excellent establishment of a range of legumes. This has multiple benefits including improved cattle productivity through higher quality pastures, plus reduced nitrogen emissions and incorporation of organic matter for more climate smart agriculture. Legumes contributed to a significant improvement in pasture quality compared to grass only pastures. Specific planting machinery, mulch management prior to sowing, and subsequent grazing management, were important components of establishing and maintaining legume and grass mixed pastures. This no-till sowing of legumes is a valuable practice for sustainable agriculture, not just for the Top End, but agricultural systems overall.



4.00PM	CLOSE OF THE DAY’S PROGRAM
6.00PM	2023 NT NRM AWARDS GALA DINNER

The 2023 NT NRM Awards gala dinner celebrates the prestigious NT Natural Resource Management Awards, which recognise and celebrate the outstanding achievements of landholders, community groups, farmers, rangers, schools, businesses, and researchers, who look after our land, water and biodiversity for the future.



8.00AM REGISTRATIONS OPEN

If you have not already registered on Day 1 or Day 2, please make your way to the registration desk to collect your delegate information.

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9.00AM – 12.30PM MORNING SESSIONS

Agriculture Forum

The Agriculture Forum will focus on practices that have been adopted by land managers in pastoral and plant production systems across the NT to increase soil health, plant or animal productivity, water use efficiencies and innovative technology use. Presented by experienced pastoralists, farmers and those who work alongside them, this forum will identify tools and opportunities across the industry that can be beneficial to your business. With a range of topics including grazing and pasture improvement strategies, soil skills, composting, carbon, irrigation and surface water management, climate analytics and understanding how to best utilise your micro workforce (native bees and microbes), there will be something for everyone.

Presenter

Presented by experienced pastoralists, farmers and those that work alongside them, this forum will demonstrate tools and opportunities from across the industry that can be adopted in your business to deliver efficiencies and provide some resilience against a variable climate.

Celebrating Digital Women Ranger and Researcher Activities and Impact across Northern Australia

The workshop showcases the efforts and impact of Indigenous women researchers and rangers who are using data and digital technology to monitor and manage significant species and habitats. We will present an overview of the growing digital women ranger and researcher network and encourage workshop participants to be supported and encouraged to share their own stories of how they are collecting, analysing, and using data in their own caring for country work. Together we will learn about best practice methods and cultural protocols that are needed for Indigenous women rangers to access and build digital inclusion pathways through caring for country programs. This workshop is important because there is a growing interest in responsible use of data to monitor building digital skills for Indigenous women rangers, who play a vital role in monitoring and managing country and have unique social and cultural considerations to become confident and skilled in using data and digital tools in their ranger work. Empowering Indigenous women rangers is vital as data and digital tools are increasingly used in conservation monitoring and management and Indigenous people and women have requested support to learn to use these tools to co-produce new knowledge on their own country.

Presenter

The workshop will be co-presented by a collective of Indigenous women rangers and Indigenous and non-Indigenous researchers who are working together to responsibly use data and digital technologies to support caring for country work and build a community of practice to support this effort.



Maps for Fire Management: Using NAFI

The North Australian and Rangelands Fire Information (NAFI) Website provides maps of fires based on satellite images to help fire managers across regional and remote Australia. NAFI is the primary fire information service used by the majority of land managers across Australia and is the legislated source of fire data that underpins savanna burning carbon projects. During the workshop we will discuss the tools available on the NAFI site for monitoring fires, strategic fire planning and reporting including:

- Basic introduction into how satellites 'see' fires
- When you might use NAFI throughout the fire year
- How you can access NAFI - Computer or Phone
- Basic website navigation and key tools
- NAFI training resources

Presenter

This workshop will be delivered by the North Australia (& Rangelands) Fire Information service team.

What to bring

It would be useful to bring a laptop to this workshop.

12.30PM – 1.30PM NETWORKING LUNCH

Day 3 Workshop attendees are invited to join us for a fully catered lunch to meet and network with fellow delegates, presenters and event partners.

1.30 PM CLOSE OF THE DAY'S PROGRAM



Territory Natural Resource Management (TNRM) is an independent not-for-profit organisation that works with Territorians to plan for and support sustainable management of our land, water, biodiversity, plants and animals.

Our Members include Indigenous organisations, Industry bodies, primary producers, Landcare groups, local government and businesses that are all committed to looking after the NT's diverse natural resources.



- Aboriginal Carbon Foundation
ABS Scrofa (Australia) Pty Ltd trading as Wild Science
Anindilyakwa Land and Sea Rangers
Arafura Swamp Rangers Aboriginal Corporation
Arid Lands Environment Centre
Australian Vegetation Management Services
Barkly Landcare and Conservation Association
Batchelor Institute Indigenous Tertiary Education
Bawinanga Aboriginal Corporation
Big Gecko
Big Rivers Weed Management
Bradshaw and Timber Creek Contracting and Resource Company
Centralian Land Management Association (CLMA)
Centrefarm Aboriginal Horticulture
Charles Darwin University, College of Engineering, IT & Environment
City Of Darwin
City of Palmerston
Connect Environmental
Conservation Volunteers Australia
Creative Territory
Darwin Aquaculture Centre
Deewin Kirim Aboriginal Corporation
Demed Association
Desert Knowledge Australia
Dhimurru Aboriginal Corporation
Eco Logical Australia
Ecoservices NT
EcOz Environmental Services
Environment Centre NT
Environmental Defenders Office NT
Fire Stick and Associates
Friends of Foggy Dam
Friends of Mitchell Creek Catchment Landcare Group
Frogwatch
Greening Australia (NT) Limited
Greg Owens Private Consulting
Gundjeihmi Aboriginal Corporation
Heytesbury Cattle Company
Indigenous Land and Sea Corporation
Industry Skills Advisory Council NT (ISACNT)
Jawoyn Association
Lakeside Drive Community Garden
Land for Wildlife (hosted by Low Ecological Services)
Landcare NT
Larrakia Nation Aboriginal Corporation
Litchfield Council
Live and Learn Environmental Education
Ludmilla Creek Landcare Group
Mabunji Aboriginal Resource Association Inc.
Malak Marketplace Inc.
MB Consulting (NT) Pty Ltd
McMinns Lagoon Reserve Assoc. Inc.
Mimal Land Management Aboriginal Corporation
Minerals Council of Australia - NT Division
Mint Key
MTP Contracting Pty Ltd
National Association for Sustainable Agriculture Australia (NASAA)
Njanjma Aboriginal Corporation
North Australian Rural Management Consultants (NARMCO)
Northern Land Council
Northern Territory Cattleman's Association
NT Farmers Association
NT Seafood Council
Olive Pink Botanic Garden
Outback Helicopter Airwork NT
Outbush Contracting
Parks Australia, Department of Agriculture, Water and Environment
Regional Development Australia NT
Roper Gulf Regional Council
Roper River Landcare Group
Savannah Guides Limited
Savanna Solutions Pty Ltd
Savannah Way Limited
Shilo Station
SLR Consulting Pty Ltd
Snappy Gum Consulting
Tanya Izod & Associates
Territory Native Plants
Thamarrurr Development Corporation - Thamarrurr Rangers
T.H.E. Kakadu Plum
The Milingimbi and Outstations Progress Resource Association Inc. (MOPRA)
The Nature Conservancy Limited
Tiwi Land Council
Tjuwanpa Outstation Resource Centre – Tjuwanpa Women Rangers
Top End Native Plant Society
Triple P Contracting
Twin Hill Aboriginal Corporation
Victoria River District Conservation Association (VRDCA)
Wangamaty (Lower Daly) Land Management Group
Western Desert Nganampa Walytja Palyantjaku Tjutaku Aboriginal Corporation (The Purple House)
Yagbani Aboriginal Corporation





DARWIN NIGHTLY AT 6PM

Sharing the stories and news affecting Darwin, Australia and the world.



Hannah Taylor



Georgie Dickerson



Kathleen Gazzola

08 8981 8888

82 Mitchell Street, Darwin City

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Lifting our Community



In partnership with the Anindilyakwa Land Council Land and Sea Rangers, GEMCO is committed to the proactive management of quarantine and biosecurity across the Groote Archipelago.



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The Ichthys LNG Coastal Management Offset Fund, which is part of the broader NT Government-led Aboriginal Ranger Grants Program, assists rangers and sea managers deliver programs for the conservation and management of dugongs, cetaceans and threatened marine matters of national significance.

The \$A 24 million funding is part of a much bigger voluntary commitment by Ichthys LNG which includes \$A 91 million of environmental and social offsets over the 40-year life span of our development.

For more information visit:
www.depws.nt.gov.au



Pictured: Larrakia Rangers Darwin Harbour Biodiversity Project



CHARLES DARWIN UNIVERSITY AUSTRALIA

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Research Institute for the Environment and Livelihoods

The Research Institute for the Environment and Livelihoods at Charles Darwin University is nationally and globally recognised as a research leader in tropical and arid ecosystems in northern and central Australia and the near Asia-Pacific region.

RIEL's research strengths are:

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- Savanna and arid ecology
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Contact RIEL about research opportunities, postgraduate study, consultancy services, and potential partnerships.

www.cdu.edu.au/RIEL | riel@cdu.edu.au

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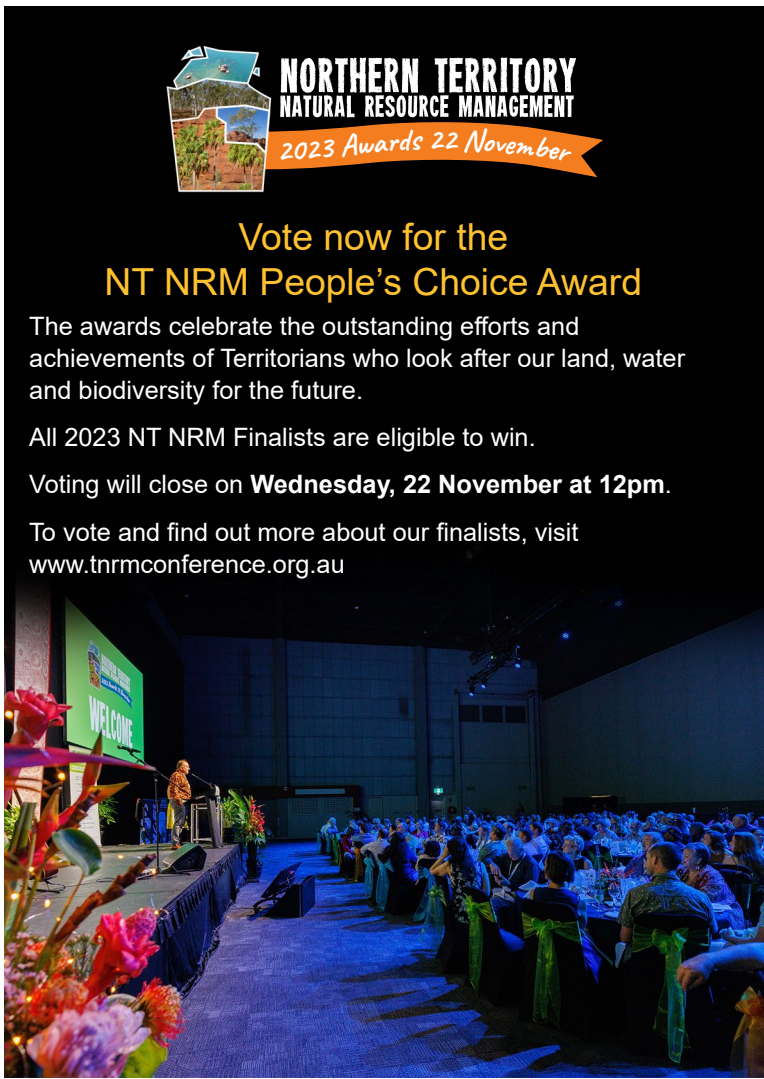
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NORTHERN TERRITORY NATURAL RESOURCE MANAGEMENT
2023 Awards 22 November

Vote now for the NT NRM People's Choice Award

The awards celebrate the outstanding efforts and achievements of Territorians who look after our land, water and biodiversity for the future.

All 2023 NT NRM Finalists are eligible to win.

Voting will close on **Wednesday, 22 November at 12pm.**

To vote and find out more about our finalists, visit www.tnrmconference.org.au



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