

CARING FOR SEA COUNTRY

TRADITIONAL OWNER STORIES FROM
THE GREAT BARRIER REEF

2023–2024



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Acknowledgements

The stories and voices in 'Caring for Sea Country' were told and heard on Country. The stories are shared with the permission of the original storytellers. First Nations people should be warned that the stories may contain images, descriptions, and names of the deceased.

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We would also like to acknowledge the Torres Strait Islanders who work alongside Reef Traditional Owners and contributed to the project. As part of this project, Winangali travelled across the Reef to hear from Traditional Owners on their Sea and Land Country. The Winangali team interviewed dozens of Traditional Owners on Country for this project.

These are the stories of Traditional Owners and Custodians of the Great Barrier Reef and what they are doing to care for their Sea and Land Country.

Collation of these stories was conducted to support the development of the Great Barrier Reef Outlook Report (Outlook Report) 2024.

Indigenous Cultural and Intellectual Property (ICIP) Rights listed.

This publication supports the rights of all the Traditional Owner peoples and organisations who took part in the project. The Great Barrier Reef Marine Park Authority supports the rights of First Nations people across the Great Barrier Reef and its catchment areas to control and protect their languages, traditional knowledge, traditional cultural expression, cultural objects, secret and sacred material as well as documentation of their heritage in all forms of media such as films, photographs, artistic works, books, reports, records taken by others, sound recordings and digital databases.

This includes but is not limited to the: Woppaburra (First Nations) people, the Mamu Traditional owners and their people on Country, Mandubarra Traditional Owners and communities,

Jiigurru Traditional Owners, Lama Lama, Dabu Jajikal Traditional Owners and their people, Bailai, Gurang, Gooreng Gooreng, Taribelang Burda Peoples, Kuku Yalanji, Kuku Nyungul and Jalunji Traditional Owners, Lama Lama Traditional Owners, Gunggandji-Mandingalbay Yidinji Traditional Owners, Gimuy Walubarra Yidinji, Ngaro People and Traditional Owners, Torres Strait Islander peoples.

CARING FOR SEA COUNTRY

TRADITIONAL OWNER STORIES
FROM THE GREAT BARRIER REEF

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We visited, listened and spoke to numerous First Nations people, communities and organisations across the Reef on their Land and Sea Country. On the following pages they share some of their stories of caring for Sea Country.

PARTICIPANTS' LAND AND SEA COUNTRY INCLUDES:



Cape York Peninsula
Aboriginal Land
Lama Lama National Park
[VIEW LOCATION MAP](#)



Cairns — Hastings Reef
[VIEW LOCATION MAP](#)



Jiigurru (Lizard Island)
[VIEW LOCATION MAP](#)



Yarrabah
[VIEW LOCATION MAP](#)



Hope Vale
[VIEW LOCATION MAP](#)



Mamu Country (Innisfail)
[VIEW LOCATION MAP](#)



Wujal Wujal
[VIEW LOCATION MAP](#)



Mandubarra Country
(Kurrimine Beach)
[VIEW LOCATION MAP](#)



Yunbenun (Magnetic Island)
[VIEW LOCATION MAP](#)



Ngaro Country
(Airlie Beach)
[VIEW LOCATION MAP](#)

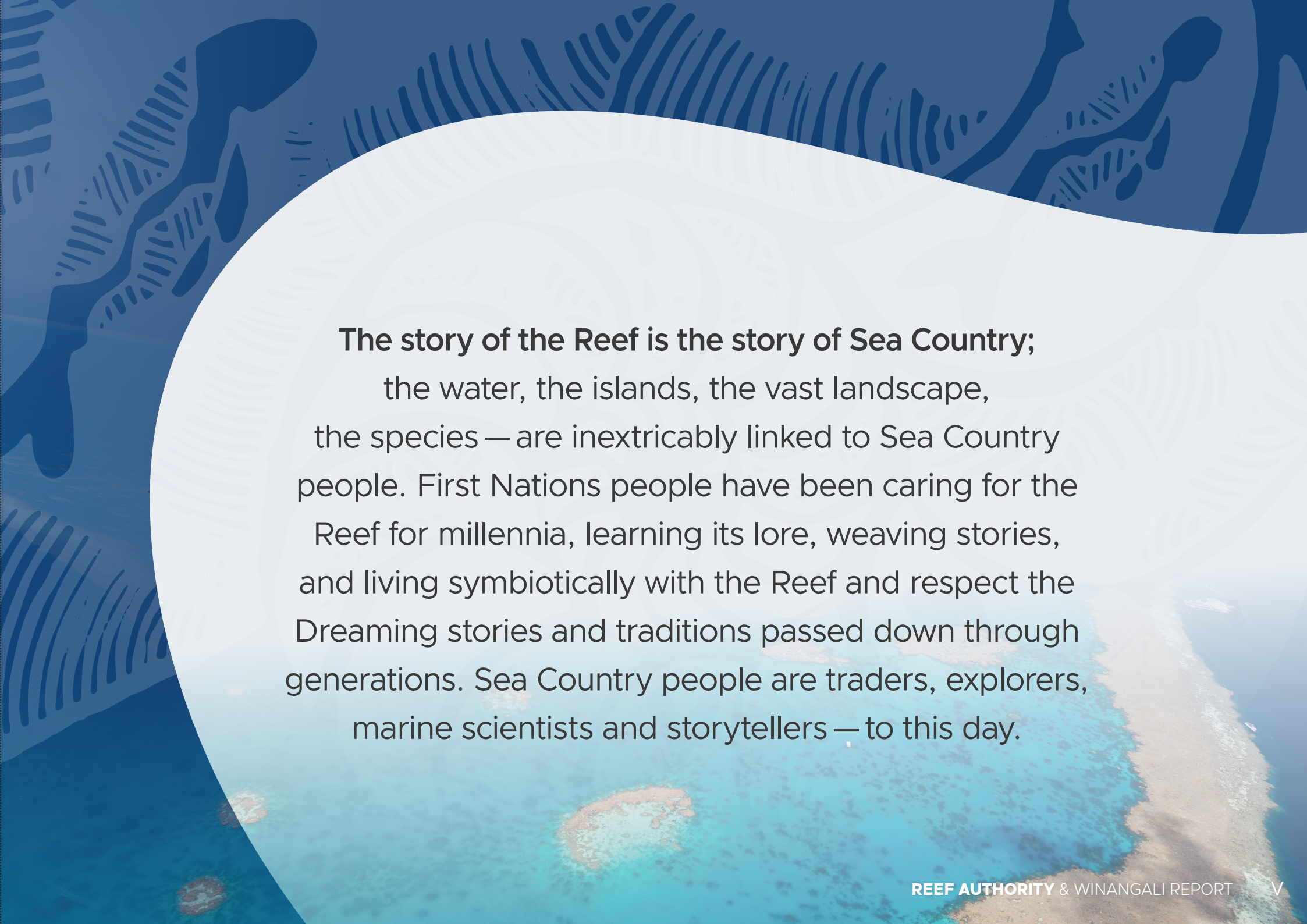


Douglas Shoal
[VIEW LOCATION MAP](#)



Woppaburra Country
(Keppel Islands)
[VIEW LOCATION MAP](#)

Approximately
70 Traditional Owner
groups whose Sea Country
includes parts of the Great
Barrier Reef Marine Park and
who are Traditional Owners of
the Great Barrier Reef Region with
evidence of their Sea Country
connections dating back 60,000 years.

The background features a deep blue color palette. In the upper portion, there are stylized, dark blue fish-like shapes with white internal patterns, possibly representing coral or traditional art motifs. A large, light blue circular shape is centered on the page, containing the main text. The bottom right corner shows a satellite-style image of a coral reef with various shades of blue and brown, indicating different depths and reef structures.

The story of the Reef is the story of Sea Country;
the water, the islands, the vast landscape,
the species — are inextricably linked to Sea Country
people. First Nations people have been caring for the
Reef for millennia, learning its lore, weaving stories,
and living symbiotically with the Reef and respect the
Dreaming stories and traditions passed down through
generations. Sea Country people are traders, explorers,
marine scientists and storytellers — to this day.



Introduction

Traditional Owner connection to the Reef, to Sea Country, is an ancient story for our time, and for our future.

The Great Barrier Reef (the Reef) lies inextricably in the hearts, souls, spirit and bloodlines of its Traditional Owners and First Nations Custodians who continue to be part of its journey over millennia and into the future.

First Nations peoples of the Great Barrier Reef carry many lifetimes of cultural and traditional responsibilities to protect and manage Land and Sea Country. They have cared for Country for tens of thousands of years — across deep time and back to the stories of the Dreaming. Stories that are told today — with the permission of Elders. These stories are part of the future of the Reef, and it is an inter-generational journey of Sea Country.

Traditional Owners and their communities have this deep spiritual connection to the Reef and its surrounding ecosystems. They hold a profound understanding of the delicate balance that sustains the Reef's biodiversity. Traditional Owners play a central role as guardians of the Reef. As such, these stories feature how Indigenous knowledge is blending with contemporary environmental management, technology and western science to build Reef resilience.

'Caring for Sea Country — Traditional Owner Stories from the Reef' (Stories from the Reef) shares with you personal and professional reflections of caring for Land and Sea Country of the Reef. They are shared with respect to their ancestors and with the permission of Elders. They are a living storytelling homage to future and past generations of Reef Traditional Custodians.

The Great Barrier Reef is identified by UNESCO and the World Heritage Committee, as a place of outstanding universal value. Globally, nationally and locally, the Reef is of infinite and indescribable value.

Yet these stories do describe the value of the Reef. Told in the first person by many First Nations voices, they are diverse accounts of the connection, culture, work, care and the value of the Great Barrier Reef to the Traditional Owners and Custodians who first inhabited the Reef, and will continue to do so for all time.

The endurance, innovation, connection to environment are central to First Nations peoples' roles as custodians and guardians of Land and Sea Country of the Reef.

Weaving traditional knowledge and western science is emerging as key to the protection and survival of the Reef.

The sharing of unique stories and experiences — including revival of cultural practices, coming back to Sea Country after forced removal, healing and new learnings — are shared with you here as a living document of First Nations voices of the Reef. We understand there are many more stories to be heard and shared.

All storytellers are trailblazers in their own right.

It is with gratitude that we share with you *'Caring for Sea Country: Traditional Owner Stories from the Great Barrier Reef'*.



Context

The case studies (stories) were informed and inspired by the following:

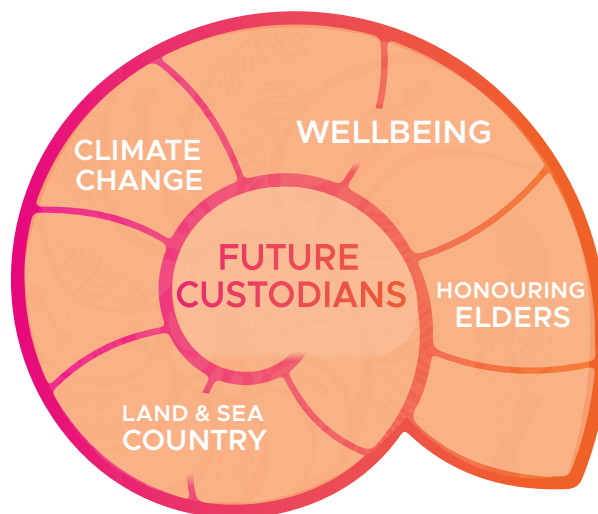
About the project

The project was developed by the Great Barrier Reef Marine Park Authority (Reef Authority) and implemented in partnership with Winangali — a 100 per cent Indigenous owned communications and engagement organisation.

The Reef Authority and Winangali reached out and collaborated with Traditional Owner groups, individuals and organisations, gathering stories and information about their connections to Country. The goal was to produce a series of stories featuring First Nations people and/or communities who care for Sea Country within the Great Barrier Reef Region. It is hoped they help people learn about the critical work and connections taking place between Traditional Owners and alliance organisations. Some of the stories are also being included in the 2024 Outlook Report.

What we set out to achieve

By working together on 'Caring for Sea Country' — we sought to share views and voices about how Traditional Owners and Custodians are caring for their Country. We did this by speaking to a diverse group of people working in different organisations and in different capacities. We aimed to gather stories, experiences



These are some important pillars of the stories

and reflections from; women, men, Elders, emerging leaders, younger Traditional Owners, knowledge holders and many other Traditional Custodian subject matter experts. We hope to have represented many voices, many experiences. We know this is only the beginning. We know there are many more stories to be told by the 70+ Traditional Owner groups and communities.

What we set out to learn and share

- cultural practices, observances, customs and lore
- how cultural practice relates to species and ecological processes, including plants, animals and places

- stories, songlines, totems and languages
- Indigenous structures, technology, tools and archaeology
- the connection between all these elements
- actions in practice such as activities, projects, programs and collaborations.

It is with generosity of time and spirit that so many First Nations people working in conservation, tourism and protection came forward to tell their unique stories — of how they are working — sometimes for the first time in generations — back on Land and Sea Country. We invite you to read their stories and share in these remarkable journeys.

Reef 2050 Traditional Owner Implementation Plan

The Reef 2050 Traditional Owner Implementation Plan outlines actions to achieve Traditional Owners' aspirations for the Great Barrier Reef. It brings Traditional Owner actions together into a cohesive framework for implementation.

Specifically, our compilation of stories shares the following aspirations of the Implementation Plan:

- Tell their own stories — to elevate the voice of Traditional Owners through the implementation of Indigenous-led approaches to reporting and their incorporation into integrated monitoring and reporting frameworks at local, national and international levels.

The stories here also exemplify the work in action to build more effective partnerships and grow capacity, drive investment and better coordinate efforts across the Reef and its catchments.

Strong Peoples — Strong Country framework

This framework supports the development of Indigenous heritage monitoring to assess the condition of Indigenous heritage values over time through the Implementation Plan.

The Great Barrier Reef Outlook Report

The Outlook Report is an official reporting mechanism of the Reef Authority that assesses the Reef's health, pressures and likely future. Elements of the Outlook Report are woven throughout the stories.

Outstanding universal value

The term 'outstanding universal value' means a place of cultural and/or natural significance that is so exceptional it's of global importance to humanity and its permanent protection is of the highest importance to the international community. To be considered as a place of outstanding universal value, World Heritage Properties must meet a set of criteria. Importantly, the values described under the criteria for the Great Barrier Reef — in its statement of outstanding universal value —

include the 'strong ongoing links between First Nations people and their Sea Country.'¹

The Great Barrier Reef was inscribed on the World Heritage List in 1981 recognising its outstanding universal value. At the time of inscription, this included 'man's' interaction with the natural world. The Reef also has natural, Indigenous and historic heritage values.

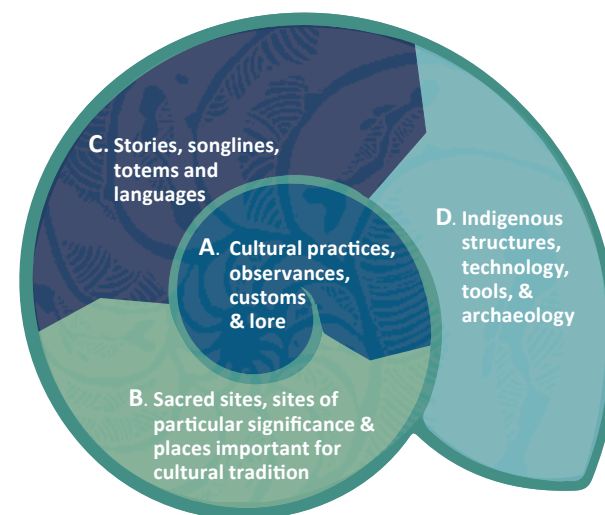
Indigenous heritage values

According to the Implementation Plan, Traditional Owners view Indigenous heritage as 'everything in the sea'. Indigenous heritage values of the Reef include Traditional Owners' connection to land and sea. The central theme of Indigenous value in the Great Barrier Reef, wraps around all other themes. The theme of Indigenous value is a strong thread running through all the stories, programmes and Traditional Owner knowledge and ongoing living culture.

The Reef Authority's Traditional Owner Heritage Assessment Guidelines outline the importance of Indigenous heritage to individuals, communities, Australia and internationally, and provide many examples of Indigenous heritage components (the things that hold value) within the Reef.

The Reef Authority recognises that the Reef holds many values, including natural heritage value, Indigenous heritage value, historic heritage value and social, economic and aesthetic value.

Indigenous heritage is living heritage which First Nations people continue to practice, providing meaning to everyday life and contributing to the ongoing wellbeing of communities.



The Outlook Report considers four interconnected components of Indigenous heritage

¹ https://reefto.au/wp-content/uploads/2023/09/DES_GBR_TO-Report_WEB.pdf, page 12

Hearing from Country Stories

Caring for Sea Country: Traditional Owner Stories from the Great Barrier Reef is a unique compilation of what it means to have a deep connection to Country. Whether it be individual, collective or community — the common theme is the strong sense of custodial responsibility Traditional Owners share across the some 70 Traditional Owner groups of the Great Barrier Reef.

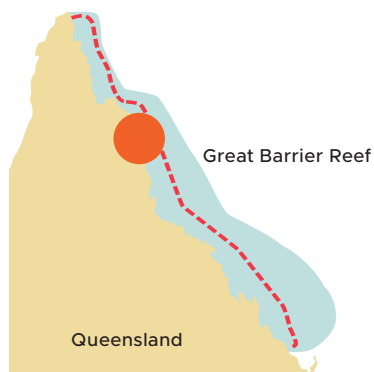
Shared themes across the stories include; shared values of caring for Country, cultural recognition, knowledge holders as subject matter experts, finding new ways of working, respect for Elders, building capability, respect for biodiversity and the spiritual and totemic value of Reef species. Dreaming is acknowledged as integral to the story and spirit of the Reef.

The endurance of culture against all odds and the wisdom of Elders holds a special place across

all the stories. So to does the emergence of programs, projects where younger generations are finding space to celebrate their culture while learning new ways of working in a positive embrace of western science. This is particularly evident in young First Nations women becoming knowledge holders and moving towards leadership roles.







CASE STUDY

Jalunji:

*Footprints of the past make tracks for the future***FEATURING:** Aunty Lizzie, Aunty Marie, Betty, Kuku Yalanji, Kuku Myungul, and Jalunji Elders and Traditional Owners**LOCATION:** Kuku Yalanji, Kuku Nyungul and Jalunji Country — Wujal Wujal, Cape York

The story of the Reef, of Sea Country; the water, the islands, the vast landscape, the species — is inextricably linked to Sea Country people. Sea Country people have been caring for the Reef for millennia, learning its lore, weaving stories, and living symbiotically with the Reef. Sea Country people are traders, explorers, marine scientists and storytellers — to this day.

Traditional Owners have not always been heard. Now the tide is returning, bringing long-called-for acknowledgement of Sea people's vast store of knowledge of the world's most significant Reef system.

New ways of working together are emerging to bind knowledge systems and to combat global climate change in First Nations communities, in the world's largest and one of Australia's most biodiverse Reef systems.

'This new way of working brings together the new ways and our ways to make the Reef well again.' the Implementation Plan.

One community in the far north of the Reef exemplifies this enduring connection to Sea Country.

Wujal Wujal is the Kuku-Yalanji Traditional Owner name meaning 'many falls'. It is a region of ranges, rivers, waterfalls, and reefs, located in the Cape York region of Far North Queensland. It is the ancestral Country of the Kuku Yalanji, Kuku Nyungul and Jalunji Traditional Owners.

It is a strong community, rich in the tradition of storytelling — anchoring traditional knowledge and lore for generations to come. Elders are playing a vital role in observing changes to marine areas and Land Country connected to oceans, keeping stories and traditional ways alive.

These oral archives are being passed to their future generations.

The journey and connection of Sea people and Sea Country is captured by Jalunji Elder, Aunty Lizzie, one Elder at the heart of the **Dabu Jajikal** community.

'They tried to take away my language and my culture but they couldn't break me ... I reconnected with my Country and I have fought for my Country'

'I was born on Country, not in a hospital and we lived in humpies and grass huts.'

'I was put in a girls' dormitory at nine years old until I turned nineteen. I got an education by the Lutheran Church. They tried to take away my language and culture, but they couldn't break me. I reconnected with my Country, and I've fought for my Country — Land and Sea Country. I got my niece and nephew involved and we got Determination in 2007.'

Today, children still go away to go to school, and young people move off Country. With work now underway to develop a local ranger program, the aim is to bring sustainable employment back into the community for years to come, while also working on ways to limit the impact of tourism in the area.

With their custodial responsibilities to care for Land and Sea Country, Dabu Jajikal Traditional Owners want to reduce the impact of tourism on biodiversity and the environment. They have a plethora of data, observances, and knowledges about changes they have seen over their lifetimes.

The sea eagle is of totemic value to the Traditional Owners in and around Wujal Wujal.

Betty, another Dabu Jajikal woman and Jalunji Traditional Owner, is passing on her knowledge to her grandchildren. She is teaching her grandchildren her language and how to observe changes and care for Land and Sea Country, just as her grandparents passed it on to her.

'They're always asking me 'what can you do with this?' or 'what does this word mean?'" She is always talking to them, teaching them how to care for Country just as her grandparents did with her.

As she overlooks the beach at 'Bulla' (Weary Bay) near Wujal Wujal, Betty reflects on the impacts that she has noticed over the years: *'There are not many pipis here anymore because of the all the quad bikes. But they have stopped now and the pipis are coming back.'*

Aunty Marie, also a Dabu Jajikal and Jalunji Elder, also grew up on the Reef. *'When we were kids we would walk across to the reef, and we would collect shells, and oysters, and throw them on the fire. And black sea urchin. We grew up on that. The kids don't do that anymore, and you can't walk that anymore.'*

Dabu Jajikal man, Barry speaks about his youth on Country. *'As a twelve-year-old, I would go into the boat and the coral was beautiful and colourful, it was so pretty. Now the colours are gone.'*

'The turtles are not nesting here on Bulla anymore. The boats, quad bikes on the beach, the pigs, and the increasing crocodile population have all impacted turtle nesting.'

'Our old people were doctors, scientists, and teachers. They left a strong legacy for us. And if Country is not well, or Sea Country is not well, we're not well,' says Aunty Lizzie.

'I gave much and my Sea Country people gave much and parts of my country changed, new plants and new animals, rivers once flowed with fresh water. My corals became sick and lost my colours and over years I was changing, they lived by the lore of the land and the sea and I was calling for help. When my Sea Country people cared for me we were both healthy.'

Story of the Reef, Traditional Owner

Aunty Lizzie remembers and shares stories of connecting and caring for Country, and Country caring for her through its medicines (such as green ant juice for colds, stinging tree sap for burns, stringy bark and tree roots for sores); and eating berries and wild cherries and sour plums to stay healthy.

This connection to the Reef, to Sea Country, is an ancient story for our time, and for our future.



CASE STUDY

Sea Women of the Great Barrier Reef:
empowering women to care for Sea Country

FEATURING: Francis Joyce (Mamu Traditional Owner), Olivia Mooka (Girringun Traditional Owner), Ky-lou Sagigi (Torres Strait)
Special thanks to the Wulgurukaba Traditional Owners

LOCATION: Wulgurukaba Country — Yunbenun (Magnetic Island), Mamu Country — Innisfail, Girringun Country — Cardwell

First Nations women across the Reef are connecting their traditional knowledge with marine science and technologies, enhancing understanding of the Reef's biodiversity.

Their approach fosters a holistic and sustainable stewardship of Sea Country that values interconnected cultural, spiritual, and ecological knowledge.

Climate change and other impacts call for a strong network of Sea Country guardians to monitor, manage, and protect biodiversity on the Reef.

First Nations women are taking a lead role in the management of Reef habitats through programs such as the Sea Women of the Great Barrier Reef program. This is an intensive capacity-building training program delivered on Yunbenun Magnetic Island, bringing together women from North Queensland and Zenadth Kes (Torres Straits Islands) and Papua New Guinea.

The program was initiated by The Coral Sea Foundation and is an extension of the Sea Women of Melanesia Program. It is framed by the United Nations' Sustainable Development Goals of 'gender equality', 'sustainable communities', and 'life below water'. Participants are trained by Sea Women graduates, and by program co-directors, Naomi Longa and Dr Andy Lewis.

'Not many women have had the chance to get out and do this work. It's been male-dominated, and men have usually got first preference. It's a big step for women and we now also have a Queensland network of Indigenous female rangers, and it's growing all the time,' says Olivia Mooka, a Girringun Traditional Owner and program participant.

The program enables selected women leaders to share their own Sea Country values and knowledge. They learn to merge cultural knowledge with marine science and practical marine skills they can take back to their Sea Country to build sustainable monitoring programs.

'We're natural nurturers and our connection with other women empowers us to heal ourselves, each other, and our communities. We can work with our communities now — using Indigenous knowledge systems and western scientific knowledge, using contemporary technologies and equipment,' says Francis Joyce, a Mamu Traditional Owner, program participant and ranger.

Sea Women alumni, Olivia Mooka and Ky-Lou Sagigi, see this knowledge-sharing as vital. *'We learned so much from each other. We were a variety of ages, some just out of school and others in the workforce for a while. We were able to share and gain a world of information that we didn't know like mapping and GPS navigation. The program worked perfectly. It had the best of both worlds — the Indigenous cultural side and the western science side,'* says Olivia.

Much of the training takes place on Yunbenun, Sea Country of Wulgurukaba Traditional Owners.



Ky-lou Sagigi taking part in Great Barrier Reef Sea Women training. © Coral Sea Foundation

'We dived at two new sites along the east side of the island and found awesome coral cover and fish life. During this part of the program, participants are prodigious: collecting some 1,840 reef survey images, practicing underwater scuba navigation, expedition planning, advanced boat driving, improving their reef survey camera skills, coral and fish ID, and enhancing their ReefCloud.AI image analysis ability,' says Naomi Longa, Sea Women Foundation co-director.

A highlight for Ky-Lou has been absorbing specialist marine ecology knowledge about coral diversity, the resilience of the reef and sustainability.

'The whole program provided me with so many skills, and really opened my eyes to the opportunities for Sea Rangers, while also connecting me more with culture, and with my Torres Strait Islander peoples,' Ky-Lou said.

Program graduates are proficient in writing marine expedition plans, conducting risk assessments, and managing logistics. They learn about biosecurity and resource management. They acquire skills for consulting with community to identify suitable sites for exploration, and presenting findings back to Elders and community, and formulating sustainable conservation plans for designated areas on Sea Country. This process is based on a reciprocal knowledge exchange between Traditional Owners and scientific data.

Francis Joyce is a Mamu Traditional Owner, ranger, and program participant. Her knowledge can not only benefit the Reef, but other parts of the Pacific. *'Fran's water sampling and monitoring in waterways upstream is really important, we need that back home in PNG, it's really important we are sharing knowledge,'* says Naomi.

Each of the program participants plan to apply their skills on Country and with their communities.

'I want to build capacity so the next generation can continue their cultural connections and care for Country,' concludes Fran.



Francis Joyce, Coral Sea Women trainer, Olivia Mooka, Ky-lou Sagigi. © Coral Sea Foundation



CASE STUDY

Woppaburra coral project:
seeding corals for healthy Sea Country

FEATURING: Meaghan Cummins, Valmai Smith, Bob Muir (Woppaburra Traditional Owners)

LOCATION: Woppaburra Country — Keppel Islands

The Traditional Owners of the Keppel Islands (16 out of the island group), lying off the Capricorn Coast in Central Queensland — are the sea-faring Woppaburra people. Coral restoration is just one of many marine and cultural projects that has paved the way for the Woppa (island) 'burra' (people belonging to) to re-embrace custodianship of their Country and Sea Country.

Woppaburra Traditional Owner, Meaghan Cummins, reflects on an emotional journey of mob coming home to Woppa and the cultural and marine conservation work underway.

'Dugong are back, seagrass, fish life, the water quality, the whole reef restoration process. This year, I've noticed a brighter pink, and that indicates a stronger spawn. It's been different, and healthier all round.'

Valmai Smith, also a Woppaburra Traditional Owner, agrees.

'Dugongs and seagrasses tell us that Sea Country is healthier and we can see the dugong tracks in the seagrass. It's looking so healthy. There's so much marine life. It's thriving. Our reef is very strong, even the science is showing us that our part of the Reef has special resilience in

some species, like seagrass and sea meadows.'

'It's looking so healthy. There's so much marine life. It's thriving. Our reef is very strong.'

Caring for Country is also paving the way for healing on Country. Meaghan says there has been a long-needed shift from *'science working on us, to science working with us.'* This focus on science for good is also enabling a revitalisation of cultural heritage and knowledge with positive inter-generational impacts for Traditional Owners.

'In the beginning, scientists would take coral for the formalities of study, but now we work with the Australian Institute of Marine Science (AIMS) who then they engaged with us and involved us. They respected the importance of generational processes of decision-making and understood that we had to go back to families. Some families take longer and they gave us the space to do that.'

Previous AIMS coral research initiatives explored a comparison of coral in Woppaburra Sea Country with other regions of the Reef.

That research showed *'our coral were able to become more heat tolerant by adapting to conditions and being resilient'*

'It reminded me of us, of Woppaburra people. Looking at the coral and how it adapts, and relating that to our adaptation, made it easy for me (to relate to the science).'

The cycle of our life of how it spawns and then just floats along in its seabed environment, and the dangers it faced, and the things it had to tolerate to find its way home, build its home, and its stability.

We're learning about ourselves as we learn about the coral and it makes it easier to talk about and share.'

Now, with AIMS and the Taronga Conservation Society, we work on a coral cryo-banking project, only the second in the world. It gives us the opportunity to spawn coral and have male seeds that could aid in the recovery and restoration of the reef in the future, maybe even 20 to 30 years from now.'

Bob Muir, a Woppaburra Elder and Indigenous Partnerships Coordinator at AIMS, has been instrumental in telling the story of Woppaburra

AIMS2329 Trainees learning how to mobilise a floating coral larvae pond.
© AIMS | Gus Burrows



Traditional Owners and is equally involved in the marine science side of things.

The Woppaburra Coral Project is part of the Australian Coral Resilience Initiative. During a 2023 coral spawning event on Woppaburra Country, three Woppaburra participants undertook a new training program for coral larval restoration. They were trained in theory of coral larval biology, night-time collection and observation of coral spawning, spawn processes for cryopreservation, rearing of coral larvae and mobilisation of coral ponds.

The trainees also constructed two floating larval-rearing pools, anchored in Considine Bay. They also collected coral spawn from Mazie Bay and stocked the larval ponds. The ponds were then towed to the other side of Considine Bay and larvae were released on a pre-arranged area of the reef.

Here, two-way learning and listening was key, with AIMS respecting Woppaburra people's requests and the 'unfolding' of their culture. *'Community had cultural preferences for the male seeding and AIMS honoured that,'* said Meaghan.

'AIMS respected our decision for the process to involve men's business and women's business. The men would go first, after the spawning of the coral's male seeds, and then collect the seeds. The women would release the eggs back into the ocean, around birthing places.'

As the team towed the ponds and released larvae into a degraded coral area — a Woppaburra designated site — an eagle circled above and a rare dugong mother and calf swam alongside the entire way.

'It's all about caring for Sea Country and we noticed that as we cared for it, it cared for us.'

The partnership is also opening up employment pathways for the next generation of Woppaburra Traditional Owners, and they are stepping into custodial roles.

'One young person is now doing work experience with AIMS and is a family spokesperson. The partnership that AIMS wanted to develop with us, and the impact of inviting us to be involved in their work has stuck with him. His commitment to caring for Sea Country came alive, and he now has aspirations of becoming a ranger,' said Meaghan.



AIMS2330 Aunty Valmai at the cryopreservation microscope. © AIMS | Gus Burrows

Valmai says *'Our kids are also now interested in being marine biologists.'*

'That's what being back on Country does,' concludes Meaghan.



CASE STUDY

Jiigurru:
*new ways of working***FEATURING:** Gareth Deeral (Jiigurru Traditional Owner)**LOCATION:** Dingaal Country — Jiigurru (Lizard Island). Jiigurru is culturally significant for several groups including its Dingaal Traditional Owners. The Thubi Warra People are recognised as the Traditional Owners of Hope Vale.

The island of Jiigurru (Lizard Island) is sacred to the Dingaal Aboriginal people. It is their Land and Sea Country, lying 240km north of Cairns and 30km offshore on the northern end of the Great Barrier Reef.

Within its 10 square kilometres, its neighbours are the smaller Palfrey, South and Bird Islands. A distinguishable fringing reef rings its shores.

The Dingaal Aboriginal people are the Traditional Owners of Jiigurru. Traditional Owners such as Kenneth McClean, work side by side with western researchers, on archeological areas. They have lived in the area for tens of thousands of years, including during times of lower sea levels, when the island was part of mainland Australia.

How it was formed and its place in songlines and stories, in the furthest regions of the Great Barrier Reef, is being revived and recaptured by Jiigurru Traditional Owner, Gareth Deeral.

'Within my family, I am teaching them about dance, about songlines, about stories — about how Jiigurru was formed, about thunderstorm and why we can still see clouds hovering over Jiigurru when we look out from the mainland,' says Gareth.

'Jiigurru is a sacred place where men's business took place. There are sacred sites everywhere there.'

It was here that young boys were brought for initiation and other men's business, and important meetings between Elders of neighbouring clans were held. These islands also provided a base for collecting shellfish, fish, turtles, and dugong.

Working with Traditional Owners, western scientists have studied changes in the ancient environment and human history of Jiigurru over decades. This is a unique collaboration between the Dingaal Traditional Owners of Jiigurru and a consortium of experts from Australian universities and research organisations.

This ongoing research signifies a fresh collaborative approach between local Traditional Owners as knowledge holders with western academics and a broader team of experts.

Gareth notes the partnership is a respectful and mutual one, with research lead, Professor Sean Ulm, anthropological archaeologist at James Cook University, meticulously following cultural protocols and custom, engaging with Traditional Owners and Elders to establish a respectful and deep two-way understanding.

There are many middens (sometimes very large campsites of food and settlement remains such as marine shells and bones for fish and turtle) on Jiigurru, that were built up over thousands of years. They tell rich stories of 'thousands of ancient feasts.'

They are stories of *'peoples who traded technologies and lore, creating song lines and connections across the seas'*, says Professor Ian McNiven, an anthropological archaeologist at Monash University.

The pottery sherds found on Jiigurru are highly symbolic and show the influence that may have been brought in from neighbouring communities and countries. They demonstrate that ancient Australia was not closed to outside influences. It highlights the movement of people, goods and ideas across the Coral Sea, at least 2000-3000 years ago.

'The influence may have come from somewhere else but those old views that 'anything sophisticated must have come from elsewhere' are still represented in discourse about Australia's First Nations peoples.'

'There haven't been thousands of sherds found here so this might represent very restricted use in this area,' he says.

However, the scientific analysis on the sherd reveals that they were made from local materials, which shows that the technologies were here, and that First Nations people made these sophisticated vessels.

'The practice may not have continued, but it's not uncommon', says Professor Ian McNiven, that 'there are many communities that once made that Lapita-style pottery (found in Polynesia and

Papua New Guinea) and who don't make it anymore. Artefacts can come and go. They may have started putting their messages into weaving or other kinds of media.'

To consider the stories that might be told by the *'thousands of fish bones'* that were found during the excavation of the middens, ichthyoarchaeologist, Dr Ariana Lambrides, from James Cook University was invited to join the Jiigurruru Research team. Analysis of the bones, from some 24 fish families identified to date and recovered from various layers of the numerous midden sites, illustrates much about how the local Traditional Owners of the island interacted with Country and Sea Country.

One example is that it can indicate the period(s) when people may have feasted here, their likely preferences for certain reef fish species, possible fishing activities, and their possible ceremonial uses of particular fish.

'We know rays are important culturally. As a researcher, I can't determine what the porcupine ray was used for in the past, and I want to avoid a 'laundry list' approach of just making a list of what fish are in the midden. That's the 'old way' of research... that's how they did it 30 years ago'.

Here, knowledge sharing is a cornerstone. Dr Lambrides turns to First Nations knowledge, stories and lore for further answers. Traditional Owner stories confirm the porcupine ray was unlikely to be eaten and its barbs were probably used for making, and for weapons.

'Importantly, what is absent from the layers can also add to the story – were those other, missing fish Dingaal totems, for example?', says Dr Lambrides.

Gareth is ensuring his family's songlines and dance are being celebrated, revived and a part of healing and knowledge sharing. The collaboration has been an ongoing opportunity to nurture and empower cultural recognition of the Traditional Owners, in community and to the broader Australian community.

'We've been learning a lot about western science and they have been learning and adapting to our ways too,' says Gareth.

'We didn't have access over there for a very long time. There are some rock formations that we found when we were out walking on the island, sharks, whales, crocodile formations that you can see so clearly. Visitors don't realise they are sacred sites and move the rocks around,' making it important to set up more infrastructure *'so that we can care for Country and care for those sites and educate people about their significance.'*

The information generated also contributes to the ever-growing body of knowledge relating to the sustainability of the Reef. Just like cultural burning practices on Country, local Traditional Owners have knowledge and practices to manage the sustainability of their Sea Country's biodiversity.

This could have been which fish to eat and which to leave. *'It shows extraordinary sustainability... everyone here was a marine specialist,'* says Dr Lambrides. In addition to the fishbones, the remains of some 80 different shell species were also revealed in a coastal midden excavated on a nearby island.

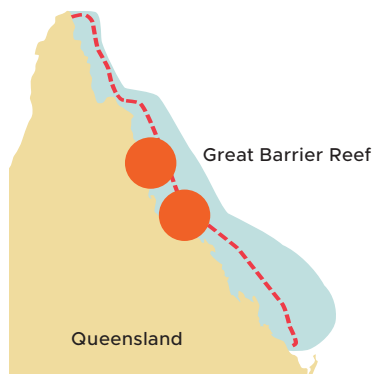
Sclerochronologist, Dr Amy Prendergast, University of Melbourne, joined the team to further explore the potential relationship between the shells and Dingaal's ancestors who lived here.

Through her analysis, further scientific evidence correlates to the Traditional Owners' stories about the seasonal use of campsite and village locations and resources, lifestyles and values of their ancestors who lived there hundreds and thousands of years ago.

Statistically, the size of the cone shells found in the middens hasn't changed over millennia. It appears locals fished only the adults and left the juveniles.

Oral histories confirm findings that the meat from giant clams was cut from the shells in-place, likely due to its weight.

A small sample can tell a big story. Whether it's a water sample, a fish bone fragment, a shell, or a rare pottery sherd, the scientific knowledge that emerges from these analyses can provide so much information about what Sea Country may have been like, how it may have changed. Synergy and connection between First Nations knowledge and stories and western scientific methodology signal a new way of working between cultures.



CASE STUDY

First Nations tourism: fostering cultural connections on the Reef

FEATURING: Victor Bulmer, Robert Congoo, Dustin Maloney, Jacob, Akee, Leanne, and Jo (Traditional Owners of the Reef)

LOCATION: Yidinji, Yirrganydji and Gunggandji Country — Cairns area, Ngaro Country — Airlie Beach and Whitsundays



Cairns — Hastings Reef
VIEW LOCATION MAP



Ngaro Country
(Airlie Beach)
VIEW LOCATION MAP

‘When tourism occurs on Country, with First Nations Traditional Custodians driving innovation and sustainable culturally safe practices, it is beneficial for our people.’

‘I want to build a legacy for our next generation and tapping into some of these industries and opening up corridors for some of them to walk through the world with ease.’

‘Tourism creates a corridor for young people to get a job and move into other industries,’ says Victor Bulmer, a Mandingalbay Traditional Owner. ‘Uncle Vic’ is a subject matter expert in his local cultural heritage and collaborates with Mandingalbay Indigenous Tours in Far North Queensland.

Indigenous employment is important for young mob to find their way to stable employment pathways. Jacob and Akee — cultural guides on the Cairns-based Dreamtime cruise, exemplify how culturally safe tourism is a vehicle to building capability.

Master Reef Guides — specialist knowledge brokers trained by the Reef Authority — are an integral part of Reef knowledge sharing. Jacob, snorkelling on the reef, is clearly in his element sharing his culture with people.

‘Pretty nice hey! It’s a sea cucumber. This

one here is called a pineapple sea cucumber because the skin of it looks like a pineapple. You have about three main types, a pineapple cucumber, a black sea cucumber and the local red sea cucumber.’

‘What you’re looking at here is something that was traded between our people and other cultures for thousands of years,’ says Jacob.

He shares knowledge handed down over the generations and it gives tourists a more direct experience of First Nations culture and his own relationship to Sea Country.

Master Reef Guide, Dustin Maloney, works with Experience Co. Dreamtime Dive & Snorkel as an Indigenous ranger. Dustin is connected to four Great Barrier Reef clan groups: the Kuku-Yalanji, Yirrganydji, Yidinji, and Gunggandji.

‘My passion for the Reef and the marine life it holds will never go away because it is a part of me and makes me who I am.’

‘Being a Master Reef Guide and an Indigenous Australian, I can be a role model and show them no matter how hard that it may be, if you carry yourself with pride for your culture and the respect of your family, your buma (people) and your Country, you can be all that you can be.’

Sisters Leanne and Jo, who also work as cultural guides, with Cairns-based Mandingalbay Indigenous Tours, are seeing the world open up before their eyes.

‘This helps us create opportunities with our people and showing them that we can create opportunities by bringing together culture and contemporary society. And this is one way that our community can get meaningful work,’ says Leanne.

Leanne and Jo are learning on the job. It is enabling them to think beyond their current role as tour guides. The sisters, direct descendants of the chief of the clan, are proudly sharing their Yidinji culture with tourists.

‘I love that it gives them the opportunity to ask questions without feeling guilty and they can come up to us and ask us something they have wanted to ask for years, and our goal is to share what we can and it is a safe space,’ she says.

Their school tours are inter-cultural learning and healing opportunities too, that go beyond the precinct of tourism.

‘A lot of people are from the stolen generation. People are normally afraid to ask about it and



Jacob is delicately holding a sea cucumber on Sea Country, and telling the story of its traditional use.

Victor Bulmer is a Traditional Owner and subject matter expert. Here he is presenting traditional knowledge to an international tourist group on Country near Cairns.



the school camps are opportunities to share and learn. We have a yarning circle with 15- and 16-year-olds; they are thinking about it, asking questions and learning,' says Jo.

'Reconnecting with culture and continuing culture. I want to pass on that passion to other people. I love my job and it has really sparked something in me, my confidence and inspiring people — not only Indigenous people but all people,' says Leanne.

One of the things the sisters love most is showing off their culture on Country. *'It is more than a job, it is meaningful.'*

Back on the Dreamtime cruise, on the Sea Country tour — Jacob talks to Sea Country and lets it know he is here and having a look around. His non-Indigenous colleague, Caitlin waits on cue. They are a powerful combination of Indigenous and marine science knowledge about ocean life.

It is a culturally safe workplace for First Nations professionals. Young cultural guides are mentored by a senior Indigenous employee. It is a shared space. Jacob also works with Akee, another Indigenous cultural

guide. Akee is well-versed on the traditional use of spears for hunting and how they are made.

Later, Jacob and Akee apply their white clay paint to their faces, arms and legs.

'We got taught how to do this from our Elders. The tracks and strokes I have painted on my legs mean my family, and our ancestors walking.'

Before the tourist boat docks, Jacob points with the clapping sticks over to the mountains ringing the Cairns marina: 'That's my Country.'

'Sharing culture creates relationships,' says Uncle Vic.

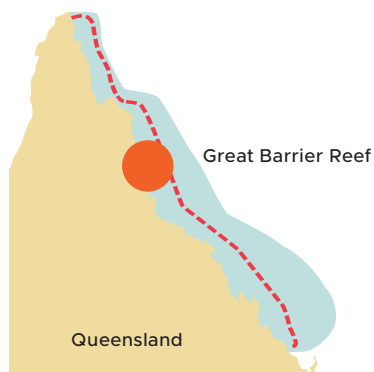
Indigenous owned, operated, or affiliated organisations are creating employment and training opportunities across their communities. This sharing is mirrored in the ethos of other First Nations operators on the Reef. Robert Congoo, an entrepreneur and advocate is a Ngaro, Gia and Kalkadoon man who runs cultural tours in the Whitsundays region.

Bringing his family back to their traditional Country and sharing his culture with people drives Robert's work.

'This is one way to come back on Country, and to bring my family and other mob back on Country, to where we belong. Sometimes when our people come back, it is the first time in their lives that they have been back to their own Sea Country.'

Mamu Country
(Innisfail)

VIEW LOCATION MAP



CASE STUDY

Healthy waterways on Mamu Country:
combining knowledge systems to care for Country

FEATURING: Francis Joyce (Mamu Traditional Owner and Indigenous ranger)

LOCATION: Mamu Country — Innisfail region

Mamu Traditional Owner and ranger, Francis Joyce, leads the first Healthy Waterways strategy for Mamu Aboriginal Corporation.

'We have an obligation to preserve and protect Land and Sea Country. If Country is sick, our people are sick. Having people work on Country heals them,' says Francis.

On Mamu Country, in Far North Queensland, Francis is combining traditional knowledge systems with scientific expertise — proving to be an effective management strategy for better understanding the impacts of land-based run off.

'The waterways are all connected. The waterways are all connected ... they're not filtering the water, more algae grows, a mud layer develops and it affects our whole waterways leading out to the Reef,' says Francis.

Other impacts are being noticed by Francis and Mamu Elders.

'The wet season is changing. We need the rains to flush out the creeks and to keep them running. The colour of the water has changed over time. It doesn't run clear anymore, it runs a dirty red, and it's getting darker every year.'

'Run off and water quality affects the species that are meant to thrive there, whether they filter the water, or the amount of algae that grows, and the coral disease that can also be caused downstream and offshore.'

There is also the increasing tilapia population, an invasive species of fish that kills our native species and that *'loves dirty, mucky water. More algae grows, more weeds grow, and a mud layer develops,'* again impacting the reef further out.

'Our food sources were being affected. Creeks were drying up, and sediment and sand was washing into the creeks and building up on the riverbanks. Invasive weeds like guinea grass and Singapore daisy, with shallow root systems that don't hold the ground together, were taking over the riverbanks. Elders were noticing a decline in our food sources like bream, mud cod, yabbies and river mussels.'

As part of the Healthy Waterways strategy — the water sampling and testing work, along with accompanying surveys of immediate surrounds — has given Mamu Rangers data that feeds into their management plans. Cultural values are also being captured. Elders who are less able to access Country

anymore, can connect to their place and contribute to management.

Now, at community meetings, Mamu Elders consider the place-based data, identify and decide on priority areas for monitoring. These include sites of cultural significance that are sacred to local First Nations people, including sites for men's business; birthing and women's sites; places of massacre of Mamu people; places that provide rich sources of food; and breeding or spawning sites.

This series of 'cultural indicators' feed into mapping workshops and are then cross-referenced with significant cultural stories. Ten key sites have been identified across Mamu Country. These include up to five 'burra' groups in Millaa Millaa, Innisfail, and Mena Creek, North Queensland — including those impacted by leaching from dumping and cemeteries.

Complementing this work is Mamu's involvement with the Firesticks Alliance. Mamu is also learning and restoring traditional techniques of cultural burning. This can help reduce run-off by putting carbon back into the soil.



Francis Joyce, Mamu
Traditional Owner.



Aerial photograph of
the Great Barrier Reef.

'We can restore Country and the old natives that used to be there, seed banks will still be in the ground.'

So too does working with non-Indigenous partners. Francis has learned to work with farmers, showing them the data collected.

'It allows them to see the impact of fertilisers before a big rain. Some of the farmers are advocates now, helping to keep the land healthy.'

For Francis, applying her knowledge on Country and to other Mamu Rangers and young mob, has been valuable.

'I'm not doing this for me, I want to build capacity now so that the next generation can continue their cultural connections and care for Country. It's good for our inner wellbeing. You can feel the connection when you're out there working. I still get goosebumps at certain times and places when I'm walking on Country. I know my old people are happy I'm doing this work.'

Francis, on behalf of Mamu, thanks the collaboration

of Terrain NRM, Melanie Dulfer-Hyams and the Queensland Department of Environment, Science and Innovation for providing project support, guidance, and training throughout. *'This involved helping develop our Cultural Indicators, training, developing our Waterways Strategy and engagement with Mamu community. Mamu Rangers also are involved with the Firesticks Alliance.'*



CASE STUDY

Indigenous ranger programs: *building a legacy to care for Sea Country and Country*

FEATURING: Grant McIvor (Lama Lama Traditional Owner), Rohann Sultana and Mel Ball (Mandubarra Traditional Owners)

LOCATION: Great Barrier Reef Region

Established and emerging Indigenous ranger groups across the Great Barrier Reef are using specialised traditional practices and cultural knowledge, along with western methods, to manage and care for their Land and Sea Country.

Grant McIvor is a former Lama Lama ranger and now an employee at the Reef Authority. He has been returning to Lama Lama Country where his children, parents, grandfather and extended family live. His sister is a senior Lama Lama ranger — carrying on the well-established biodiversity preservation and research programs developed over decades.

Grant says that working on your Country brings wide-ranging benefits.

'Longer-term employment, training, sustainability of Land and Sea Country and the connection between wellbeing of people and Country is evident (through the Lama Lama Ranger group).'

'I am happy to see young mob there doing good work for Country, and our Elders are happy to see the younger generation back on Country.'

Lama Lama has been prolific in building research partnerships, creating a junior ranger program, and establishing nature reserves on Country such as the Running Creek Nature Refuge. Their work includes pest eradication and protection of endangered species such as oyoro and oyar (dolphins) and uuchada (dugongs). Wildlife corridors on Country are offering a safe place for protected species including the eastern curlew, little tern and the estuarine crocodile.

'Part of it is also looking after Elders. We have the best of both worlds between Land and Sea Country, so we're looking at getting wheelchair access so they can see freshwater turtles, visit the sacred areas where there are paintings on Lama Lama Country. I spend time with my grandfather making videos of us making spears together. It can go into the Lama Lama museum, which was established in 1998.'

Further south, Mandubarra Junior Rangers are starting the journey of becoming Sea Country Custodians. It is being woven into their identity from a young age. They are on Country with their families, and it has become a way of life for some young mob.

Rohann Sultana, Mandubarra Traditional Use of Marine Resources Agreement (TUMRA) junior ranger coordinator wants their junior ranger program to evolve.

'The most important thing for us is having our kids back on Country and being part of that custodial relationship. By the time they are teenagers it is more natural for them to be on Country, understanding it, recognising what it needs, than watching a screen.'

Across the Region, Indigenous ranger employment pathways are having positive impacts on other First Nations communities like Wujal Wujal, home of the Kuku Yalanji, Kuku Nyungul and Jalunji Traditional Owners.

One of the respected Dabu Jajikal Elders, now passed, took a small group of family members north to learn from the Lama Lama Rangers in the jointly managed Cape York Peninsula Aboriginal Land. The Lama Lama ranger program is considered a best-practice Traditional Owner led and managed program.

Before this, the Uncle led a government-funded community project to set up a headquarters for a Wujal Wujal-based ranger program.

Chris Patterson, CEO of Dabu Jajikal Aboriginal Corporation, said this initiative has brought employment and wellbeing to the community, all the while laying the foundations for the development of the local ranger program.

'He brought a few of our young men here and with a building mentor they revamped the shed and turned it into a Ranger Station, building, painting and installing the sky link on the roof. It was nourishing for everyone. They were able to use their existing skills and qualifications and teach each other and develop new skills. It gave us confidence. We want to provide employment for our people. They were creating things with their own hands, and it gave them self-belief and a real positive energy here. Lots of our families live off Country and we want them to come back. We want to share stories with them. The Ancestors would be very proud today.'

The Dabu Jajikal Elders have worked tirelessly to build momentum in their community. The younger generation have been inspired by the work of the Uncle who passed and how he worked to connect his community with other Traditional Owner groups nearby to bring new knowledge of the ranger program onto Country.

Dugong feeding on seagrasses.

'The young ones are inspired by his legacy. They need to stand up.'

'The dugong are very important for us. There used to be a lot of dugong round close to shore but now they are all out on the reef.'

'We want a program for future generations. We want to take them to Sea Country. We want to protect the Reef, protect seagrasses for the turtle and dugong populations and see our children caring for Country.'

Connections are being made across Countries so best-practice species monitoring and land management programs can continually improve. This model for capacity building emphasises knowledge sharing and the establishment of partnerships to enhance community capability, health and wellbeing — for Country and Traditional Owners.

'The dugong are very important for us. There used to be a lot of dugong round close to shore but now they are all out on the reef.'





CASE STUDY

Mandubarra bajgal — sea turtle project:
ensuring the resilience and sustainability of an iconic totemic species

FEATURING: Mel Ball and Rohann Sultana (Mamu Traditional Owners)

LOCATION: Mandubarra Country — Kurrimine Beach

The Mandubarra people are a clan of the Mamu speaking people and Custodians of Mandubarra Land and Sea Country. For Mandubarra Traditional Owners like Mel Ball and Rohann Sultana, their connections extend from jabun (the coast) out across wajali (the sea).

This includes the coastal waters, south of the Mourilyan Harbour to Maria Creek, Kurrimine Beach and out to surrounding islands including Lindquist, Kent, Bresnahan and Sister Islands.

Central to the work of the Mandubarra Traditional Use of Marine Resources Agreement (TUMRA) and the Mandubarra Land and Sea Rangers, is reinvigorating community connection back to their traditions on Sea Country.

Mel and Rohann hold a deep commitment to their Sea Country, their ancestors, and future generations. They exemplify the custodial responsibility to protect collective Mandubarra cultural heritage and biodiversity on their Sea Country.

'I grew up with my Mum being a ranger. When we're going on to places we didn't know had history for us, and when you compare how healthy land and sea was a couple of generations ago we want to protect and

preserve, and the more present we are there, it's more likely that people and country are healthy,' says Mel, who has taken on the role as Mandubarra's Business Manager.

'I feel like us being able to work on Country and to be based on Country, it's important for value sharing into our community, we have respect for what we hold culturally, and the more people know about what is happening on Country, the healthier country is, the healthier people are, and the more they want to care for Country,' says Rohann, Mandubarra TUMRA program coordinator.

Central to their aspirations is ongoing bajgal (sea turtle), dugong and seagrass monitoring. The onsite monitoring of one of the Reef's most iconic, enduring and ancient species — bajgal — serves a dual purpose: increasing sea turtle numbers and once established, 'to then allow us, in the future, to return to our traditional practices and culture to pass down,' says Mel.

The practice of cultural lore, one of many mapped Mandubarra cultural values, is a central tenet to the protection of threatened species for Mandubarra Traditional Owners.

Although Marine Park green zones are 'no take' areas where 'extractive activities' such as fishing or collecting are prohibited, Traditional Owners have the legal right under the *Native Title Act 1993* to take turtles and dugong in these areas. Mandubarra Traditional Owners have chosen to prohibit this activity on their Sea Country with the aim of increasing populations for a sustainable future.

Mandubarra uses a holistic approach of community engagement and technology, to ensure the cultural no-take lore system is abided by.

Bajgal has totemic value for Mandubarra people and the voluntary moratorium on take has been made in response to its cultural significance as an 'extremely sensitive species'. Mandubarra management strategies for protecting and restoring bajgal numbers in their habitat around the islands of Mandubarra Sea Country include the no-take moratorium, seagrass monitoring, annual nesting and hatching monitoring and a community awareness program.

This sustainable management system, using cultural indicators, is key for Traditional Custodians and their marine science partners, such as the Reef Authority, to locally manage global climate change impacts on their Sea Country.

Mandubarra people have observed changes in these cultural indicators. It has been observed that bajgal find it harder to nest. The aim of the no-take cultural lore policy is to help mitigate impact over time, a deeply rooted practice for Traditional Custodians.

The muguy (for a long time) concept of caring for Sea Country envelops Mandubarra's marine projects and programs.

Mel says there is a much greater interest in Mandubarra cultural heritage. Elders were instrumental in igniting the programs such as the sea turtle nesting and hatching season. Monitoring was all done voluntarily long before it was formally funded.

'They were camping on Country and this led to where we are today.'

Mel benefits from knowledge from her Uncle James and Elders.

'Turtles are our totem, but it also comes back to turtle rehabilitation. The last few years there hasn't been any hatching or nesting so Uncle James has used turtles' totemic value to be a way of offering protection for them.'

Conservation programs on Country envelop the community and have revived intergenerational cultural knowledge sharing. Sea turtle restoration is one of several species protection Mandubarra programs.

Being on Country knits together best-practice sustainable management, using cultural indicators, marine science and respecting cultural lore.

'While you are learning to care for Sea Country, you're building the next generation of Mandubarra people looking after Country.'



Mel Ball (left)
and Rohann
Sultana,
Mandubarra
Traditional
Owners





CASE STUDY

Douglas Shoal rehabilitation:
improving management of risks to Sea Country

FEATURING: Brendan Fletcher (Gurang Traditional Owner)

LOCATION: Bailai, Gurang, Gooreng Gooreng, and Taribelang Bunda Peoples' Sea Country — Douglas Shoal

The Douglas Shoal remediation project represents an ongoing and consistent partnership between Traditional Owners, the Reef Authority and remediation partners.

When coal carrier — ran aground in April 2010, it caused extensive damage to Douglas Shoal, east of Gladstone in Central Queensland. It had a marine impact area of more than 40 hectares, with the site bearing the largest ship grounding scar known to have occurred in the Great Barrier Reef Marine Park.

This grounding occurred on the Sea Country of the Gooreng Gooreng, Gurang, Byellee and Taribelang Bunda people.

For Traditional Custodians it was important to be at the centre of the clean-up effort. Sea rangers from Gidarjil Development Corporation became important partners in a longstanding recovery project aimed at improving management of risks and remediation of their Sea Country.

'We have a large and significant value to the (sea) area and on land,' says Traditional Owner, Brendan Fletcher.

'As Traditional Owners we have been on Land and Sea Country for a very long time. Through our ancestors, we are the first Traditional Custodians, it's where we learnt biodiversity. We were the land managers for millennia. We've got the knowledge on how to read country, manage country and we want to work together and come up with a plan to co-manage country.'

Now, in 2023, following extensive remediation to the site, and with long-term involvement from Gidarjil Development Corporation, Sea Country is being restored.

The remediation has involved removing contaminated sediment and rubble, which has been impeding growth of marine species and vegetation. As a result, regeneration can now occur with the aim of reviving the area and restoring it to how it was before the grounding of the *Shen Neng 1*. This will contribute to the health of the reef and wider marine environment, and heal Sea Country in the eyes of the Traditional Custodians.

'The risk to our cultural values is to our food sources and the damage that was done to the reef was that it destroyed turtles, dugong, other wildlife.'

The role of the local Traditional Custodians has been vital to a symbiotic transfer of knowledge.

'Mob's role has been key. Young Indigenous rangers and Elders have all been involved with the remedial project.'

'We initially sent out three rangers and went out and did surveys and that was using scuba divers to survey the damage done. All the rangers are Traditional Owners, and it was a large achievement for them to be involved in such a large project.'

'Through these partnerships with the Reef Authority and Boskalis and our ability to use technology, it's become a great tool for us to teach young Indigenous people the technology — aero drones and underwater drones. And it's a good educational tool for our young ones to be more hands on, and by working in partnership they have grown their knowledge and understanding of technology and the use of data.'

'It's really beneficial to create that partnership and to move forward beyond this project and to grow.'

Image depicts Heron Island, 45 kilometres northeast of Douglas Shoal in Bailai, Gurang, Gooreng Gooreng, and Taribelang Bunda Peoples' Sea Country.

'The benefit we were able to deliver is significant. We have had universities coming to us and have Gidarjil being involved in other parts of the project. Universities want to learn about how we are using technology and traditional knowledge to manage land and Sea Country and our young rangers can learn from them as well.'

The project is also providing an opportunity for Elders to share their cultural knowledge and to be at the centre of caring for Sea and Land Country.

'We like the Elders to be leading in the direction they see fit. These days they can't always be on Country and that's where it's good to use live streaming into a committee meeting so they can see what we are doing, and they can guide us on what they want done and how to move forward.'

My biggest goal is to share knowledge about what we have been doing with the drone technology and how this can be used for other land and sea management on Country for other mob.

We know that our traditional knowledge and languages need to be sustained, and my goal is that when an Auntie or Elder

passes on knowledge, we fly a drone over an area and find a cultural site we never knew existed.

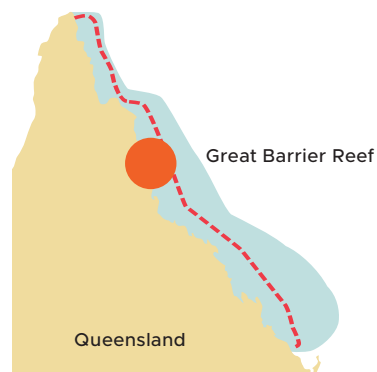
Together we can come up with a collective idea on how to manage country.

A lot of it is around cultural heritage sites, so it's actually good to have mob teaching mob because we have that cultural sensitivity around sites. I know about cultural protocols, and we want to set it up for all our cultural heritage.

Healthy country and healthy people — we will continue to look after Land and Sea

Country to sustain it for generations to come, these projects are about looking after nature and responding to community needs who live and exist on the Reef.'





CASE STUDY

Gunggandji-Mandingalbay Yidinji Indigenous rangers: *A new generation of Custodians for Sea Country*

FEATURING: GMY Indigenous Rangers

LOCATION: Gunggandji and Mandingalbay Yidinji Country — Yarrabah

The Gunggandji-Mandingalbay Yidinji Indigenous Ranger group (GMY Rangers) is shaping up to be an accomplished and highly-qualified team of Indigenous rangers — caring for their Land and Sea Country, in dual World Heritage Areas in Yarrabah, near Cairns in Far North Queensland.

Traditional Owner, Stirling King is eager to share the creation myth of the Yidinji people of how the Great Barrier Reef was formed after Bhiral, The Creator, threw lava from the sky.

As the story goes, Bhiral was angered after two brothers went out fishing, and speared a particular fish that they had been told not to hunt. Stirling and Djullja Mundraby, also a Traditional Owner, speak of the woomera and its role in their culture. The GMY Rangers are willing storytellers — stories woven into their experiences of caring for their Sea Country.

This is a Sea Country home to a diversity of species; such as seagrass, butterflies, moths, bats, stingrays, dugong and crocodiles. Some of these are being monitored by the GMY Ranger program.

The GMY Ranger program is a cohesive and vibrant team — all clearly in their element working on Country, and express their pride in working on Country.

'I like sharing my culture, I'm proud and I am getting better at doing so many things' says Trainee Indigenous ranger, Rakim Schieber.

Rakim is one of the youngest rangers and is building his expertise across a range of land and sea management areas. He is in good hands with a swag of trained-up and more experienced mentors to support him, such as Frederick, Meegan and Stirling.

Along with fellow trainees Dion Sands and Djullja, Rakim has started his Certificate III in Conservation and Ecosystems Management, having completed Certificate I already. TAFE Queensland is delivering all the training courses on Country.

Capacity building is central to the GMY Ranger program — with the more experienced rangers building their repertoire across a number of competencies, and the junior rangers following in their footsteps. This includes participating in the Australian Marine Debris Initiative, the Healing

Country Project, Community Croc Watch, cultural tourism activities, land and sea management.

Rakim radiates confidence and cultural competency.

'I like making spears and showing school groups how to use them, I feel good about my culture and Country.'

Meegan Fourmile, a Traditional Owner and one of the first female GMY Rangers, is building her leadership skills. Meegan is part of the Queensland Women's Indigenous Rangers Network as well as developing her marine biology knowledge by participating in the TropWATER annual coral spawning 7-day training event.

Meegan says the sense of place and opening up pathways for younger mob is so important.

'We have grown up in the same community, we volunteer and getting to be part of this means so much as employment in Yarrabah is an issue. If the younger ones can see what we are doing, maybe they will apply for a position,' says Meegan.

She is looking to become a subject matter expert in conservation management and is fast becoming an advocate in her own right.



Stirling King, a Traditional Owner and a qualified GMY Indigenous Ranger, is proud to be working on Country.

'It means a lot to be looking after Country, identifying different plants and species, I have learnt a lot from all the courses.'

Stirling expresses a deep connection to Country and culture and his ancestry.

'One of my main reasons for working on Country is I reckon my grandmother would be very proud. She fought for the land for a very long time and I want to make sure I keep doing the same in my way. Hopefully, by doing this work I can keep the bloodline on Country and to learn the new and old ways.'

Frederick Lafoe is a descendant of the Gunggandji and Mandingalbay Yidinji People and started with the GMY Ranger program in 2021. Now a Master Diver, qualified GMY Ranger and emerging leader.

He says his job is 'the best in the world' and he can't imagine not working on Country.

Stirling sees protection of land and sea, biodiversity and culture as paramount. He opens with a story of how the Reef was formed according to the Dreaming — the story of Woomera, of Uncle David teaching them dance and learning about weaving on Yunbenun (Magentic Island).

'There are story rocks, midden sites on GMY Country. The story of Woomera and its important to protect our Country, we don't have much construction in Yarrabah and that's important for the species we want to see come back more and more.'

'For me it is about total Aboriginal autonomy on my Country,' says Stirling.

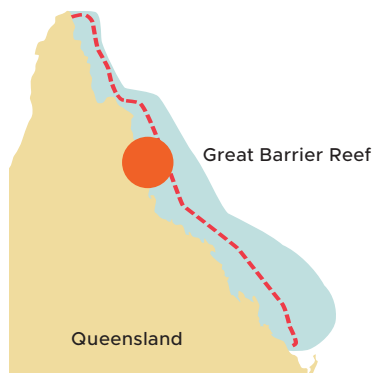


Rakim Schrieber
taking part in
free-diving training



Yarrabah

VIEW LOCATION MAP



CASE STUDY

Seagrass monitoring: *Indigenous perspectives with western science*

FEATURING: Stirling King, Meegan Fourmile (Gunggandji-Mandingalbay Yidinji Traditional Owners)

LOCATION: Gunggandji and Mandingalbay Yidinji Country — Yarrabah

Seagrass and seagrass meadows are the unsung heroes of the Great Barrier Reef. They are essential habitats for marine species such as dugong and sea turtles, that also hold totemic value for Traditional Owners. On Gunggandji–Mandingalbay Yidinji (GMY) Sea Country, Indigenous rangers are learning western science and combining it with their own traditional knowledge systems and applying this on their Sea Country.

'You don't realise how much turtles and dugongs need seagrass, and the fact that there are four different types of seagrass on our Country, it is up to us to see the other side. We can all learn a lot from each other,' says Stirling King, a Traditional Owner and Indigenous Ranger with the Gunggandji-Mandingalbay Yidinji Ranger team (GMY Rangers).

'We want seagrass healthy for our next generation, as a main food supply. And it would be good to see turtles and dugongs, stingrays coming back in more numbers.'

'With turtles and dugongs, you don't need realise how much they need seagrass, the seagrass environment is changing, the wet and dry seasons are changing. We can't rely on the old ways as much as we used to because of how climate is not following its normal habits,' says Stirling.

Meegan Fourmile, another GMY Ranger and Traditional Owner has also participated in the TropWATER survey and training, part of the Healing Country Project. This includes surveying, recording, and mapping deepwater seagrasses in GMY Sea Country.

'The seagrass mapping plays a big part in getting dugong and turtles back.'

Meegan and her fellow GMY Rangers are becoming skilled and knowledgeable across traditional knowledges and learning from western science.

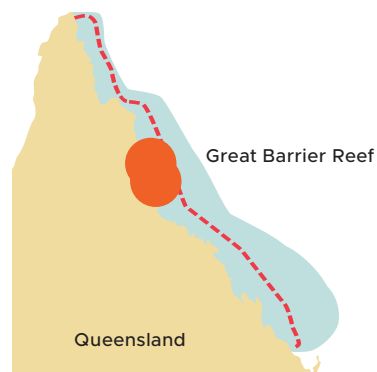
The holistic approach that combines all knowledges across ecosystem health, marine science, environmental management is building personal and community capability.

'It is about community, and getting kids involved now with Sea Country and culture — it is nice to be on Country with my people', says Meegan.

Seagrasses are essential food for turtles and dugongs.



*An aerial image of the
Great Barrier Reef.*

Kurrimine Beach
VIEW LOCATION MAPYarrabah
VIEW LOCATION MAP

CASE STUDY

Resilient Country and resilient people

FEATURING: Mel Ball, Rohann Sultana, Stirling King, Rakim Schrieber, Frederick Lafoe

LOCATION: Gunggandji and Mandingalbay Yidinji Country — Yarrabah, Mandubarra Country — Kurrimine Beach

‘Our outlook has always been one of nurture — our health, our story and our spirit are tied to the spirit and health of Country — when she is well we are well.’ Mamu Traditional Owner, 2023.

First Nations people are Traditional Owners and Custodians of the Reef and its catchments. Some 70 Traditional Owner groups, with traditional Country extending along the Reef’s coastline, and many more whose customary lands form part of the Reef’s catchments, work to care for Sea Country.

This connection extends deep into the past, with the lives of Sea Country people at one with the life of the Reef. It is also a connection that stretches into the future.

‘We can tell how much that has shifted and changed. People in the community know who we are and what we do, and we have children who are starting to stand up in front of their classrooms and saying they are junior rangers. That’s a positive impact compared to when we were young, you can see the benefit on how they feel about their Indigenous heritage,’ says Mel Ball, Mandubarra Traditional Owner and Mandubarra Business Manager.

Mandubarra Junior Rangers go on beach walks, river tours, see crocodiles in the wild, older generations talk to them about mangroves, they absorb the western science from a young age. They are doing this on their Sea Country.

‘Uncle will talk bush tucker, language and the younger children can identify turtles and know the names of some species in language,’ says Mel.

This is now part of who they are and caring for Sea Country is again becoming part of daily life for current and future generations of First Nations people.

‘I feel like us being able to work on Country, to be based on Country, a ranger base...is not only for our junior rangers, but for all of us, our community, for tourism,’ says Mel.

‘Mandubarra regards sharing what we do with community highly. The more everyone knows, the more respect happens on Country, the Country becomes healthier and the people become healthier and that is a big aspiration for us,’ adds Mel.

Mel’s journey is intergenerational. She works on Country with her mother and daughter.

Together they are reinvigorating the journeys of First Nation Sea Women leading the care of their Sea Country.

Collectively, they are aspirational and future-focused, while maintaining strong connections to their ancestors, cultural heritage, and traditional customs and knowledge.

‘I would like to have the infrastructure to do more education work with our children and to have a home base to have traditional cooking and art lessons, that’s what I want for the future,’ says Rohann Sultana, TUMRA program coordinator.

Mel is part of a coordinating effort with neighbouring Sea Country clans to join up local seagrass monitoring programs.

‘Our neighbouring clans, such as the Goondoio Rangers, are linking up with us on the monitoring of seagrasses on their Sea Country.’

The commonality is the deep commitment to custodianship, love and respect for Sea Country, and an abiding ambition to share culture with the younger generation, the broader community, and the world.



Trainee ranger graduation.

In Yarrabah, approximately 80 per cent of the land area is also World Heritage-listed. It is an area of deep cultural and ecological value. Management of these values and the natural environment are very important to the area's Traditional Custodians — the Gunggandji-Mandingalbay Yidinji (GMY) Peoples.

For former GMY Rangers Frederick Lefoe (a direct descendant of the 'King' of a clan group in Yarrabah) and Stirling King, looking after Country means a lot.

The ranger team is well-trained, holds deep cultural knowledge and works across a range of cultural, environmental and community programs.

These include monitoring crocodiles with a drone which relays information into a community crocodile alert system, seagrass mapping, and beach clean ups. Team members are becoming well certified and trained as a group.

'We are learning about seagrass and how important it is to dugong and turtle, and it is up to us to see the other side, the science side. Sometimes you can use the other side rather than only stick to the old ways,' says Frederick.

'We want to look after seagrass for our next generation, that's a main food supply, and it would be good to see turtle, dugong and stingray back on Country,' says Stirling.

Eighteen-year-old trainee ranger and Traditional Owner, Rakim Schrieber, is passionate about teaching non-Indigenous kids about his cultural heritage.

'I show them how to make spears, and I know about story sticks, midden sites on GMY Country.'

Rakim also benefits from mentorship of the more senior members of the ranger group.



Great Barrier Reef — sunrise.

'One of my main purposes is working on Country and I feel proud. Hopefully the bloodline can keep working on Country,' says Frederick.

Building the next generation of Sea Country Custodians is underway along the Reef's coastline, hemmed by waterways, rainforest, and mountains. It is a World Heritage Area and Sea Country as diverse as its Traditional Custodians, who have inhabited their Country for over 65,000 years.

Resilient Country and resilient people across all Sea Countries spanning the Great Barrier Reef is the future.

Connections across Country

First Nations people, organisations and allies are working together across Sea and Land Country to care for the Great Barrier Reef and beyond. The connections are as old as time. These connections are integral to providing the Reef, the Coral Sea and up into the Torres Strait — ongoing survival and to thrive beyond any one generation. First Nations people across a range of industries are all working together in collaboration to care for their Sea Country. There is a deep and abiding respect for descendants, ancestors and the Dreaming that tells the story of the Great Barrier Reef. This project also tells the story of all First Nations people respecting their diversity, their unique Dreaming and Traditional Custodial responsibilities that thrive beyond borders.





*Ganyjira (Kunjurra)
Island at high tide —
drone photograph
© GMY Ranger Stirling King.*



*Looking at
bluebottle
jellyfish.*



For all time:

Caring for our Sea Country special thanks

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