

Seasonal knowledge of  
***Nyinggulu coastal  
peoples***

The Baiyungu,  
Yiniguurdira  
and West Thalanyji,  
north-west Australia





Drawing on thousands of years of traditional ecological knowledge, a cultural seasonal calendar has been developed by Nyinggulu (Ningaloo) Coast Traditional Owners and WA's Parks and Wildlife Service that collates and compiles the cultural understanding of how the seasons change by looking at signals in nature.

**by Hazel Walgar and Felicity Kelly**



**F**irst Nation's people have had an ongoing connection with the Nyinggulu (Ningaloo) Coast spanning more than 50,000 years. The Nyinggulu Ganyarjarri (the people who belong to the Ningaloo Coast) have a deep understanding of the Thanardinyungjarri (the seasons of Nyinggulu) and how they influence ngarrari (land) and thanardi (sea) country.

Traditional Owners from the Nganhurra Thanardi Garrbu Aboriginal Corporation (NTGAC) and the Parks and Wildlife Service at the Department of Biodiversity, Conservation and Attractions (DBCA) have been working together on the creation of a seasonal calendar that represents traditional ecological knowledge of the Nyinggulu (Ningaloo) Coast.

Understanding the seasons of Nyinggulu has sustained Traditional Owners for thousands of years, providing them with food, water, medicine and trading goods. Traditional ecological knowledge has been passed down from generation to generation.

.....  
*Previous page*

**Main** Mauds Landing, Coral Bay.

**Inset clockwise from left** Gujawari (whale shark) swimming in Ningaloo Marine Park.

*Photos – Tourism WA*

Majun (turtle) returning to the ocean.

Peter Austin sitting with Ehan Cooyou and Hazel Walgar providing linguistic assistance.

*Photos – DBCA*

Gujanganhunghu (black-flanked rock-wallaby) at Yardie Creek, Cape Range National Park.

*Photo – Tourism WA*

Bush tomato (Yardie morning glory).

*Photo – John English*

**Above** One last workshop to finalise the calendar.

*Photo – DBCA*



**“Understanding the seasons of Nyinggulu has sustained Traditional Owners for thousands of years, providing them with food, water, medicine and trading goods. Traditional ecological knowledge has been passed down from generation to generation.” Hazel Walgar**

## COMING TOGETHER

For Baiyungu Traditional Owner Hazel Walgar, developing the seasonal calendar was a long awaited dream.

“Baiyungu people have known the changes through the season by understanding the movements and cycles of animals and how the flowering and fruiting of particular plant species signal the right time to hunt and gather as the seasons change,” Hazel said.

“This traditional knowledge has been passed down from generation to generation. I am happy to be sharing this with the younger generation.”

The Nyinggulu Seasonal Calendar began as a brainstorming session on a whiteboard in the back office of Cardabia Homestead back in 2018. Over three years, a series of focus groups and community workshops were held in Exmouth, Carnarvon and Cardabia Station, bringing Baiyungu and Thalanyji Traditional Owners together to collate and compile traditional ecological knowledge of the Nyinggulu Coast.

Dr. Emma Woodward from CSIRO, who has experience in assisting Traditional Owners in their knowledge into a seasonal calendar wheel format, has made an invaluable contribution to this project.

Emma worked closely with the Traditional Owners to turn their traditional ecological knowledge into the wheel format displayed in the Nyinggulu Seasonal Calendar.

“I was excited from the outset to support Traditional Owners to document and compile their ecological knowledge into the Nyinggulu Seasonal Calendar as I could see the calendar’s potential in raising awareness of the role of Traditional Owners, and their strong ecological understanding of Country, in the active management of this highly visited World Heritage region,” Emma said.

“Also, the process of creating the calendar enabled different knowledge systems to come together—with DBCA staff sharing their specific knowledge of migratory birds with Traditional Owners; and Traditional Owners sharing detailed cultural knowledge of plant use in a true demonstration of two-way learning exchange of knowledge.”

## WHEEL OF KNOWLEDGE

Through the development of the calendar, linguistic researcher Peter Austin joined one of the focus group workshops at Cardabia and provided language support throughout the project’s development. Peter has a long history of working with

Discover more about Ningaloo’s cultural values

Scan this QR code or visit Parks and Wildlife Service’s LANDSCOPE playlist on YouTube.



**Top** Baiyungu Traditional Owners and Dr Emma Woodward from CSIRO reviewing the Nyinggulu Seasonal Calendar.

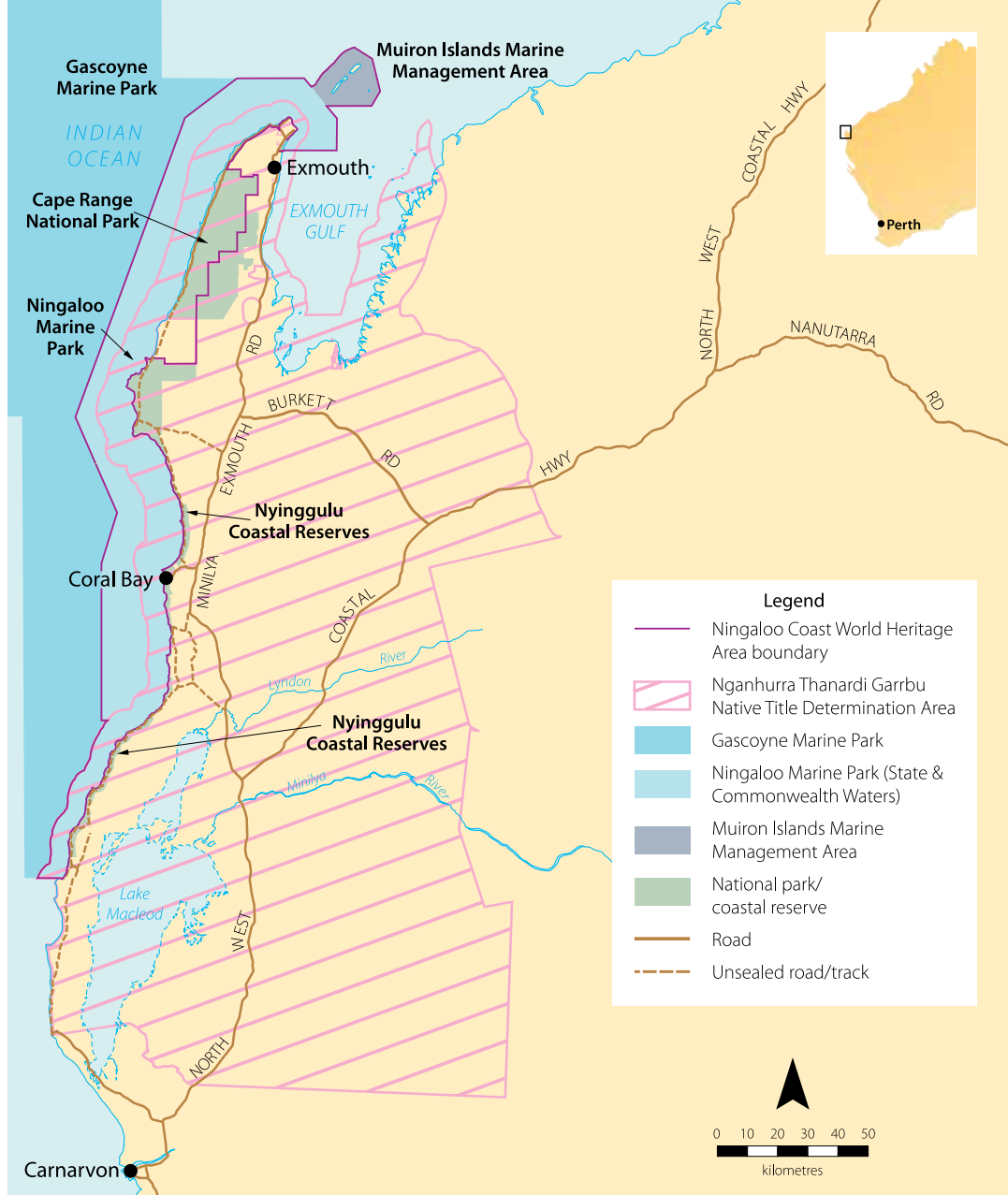
**Above** The Nyinggulu Seasonal Calendar in its early stages.  
Photos – DBCA

**Below** Turquoise Bay, Ningaloo Marine Park.  
Photo – Tourism WA

Baiyungu and Thalanji language groups, with some of his earliest work dating back to the 1970s.

The calendar features everything from the iconic species such as whale sharks, humpback whales and manta rays right down to some of the lesser known but extremely important creatures like the burrowing bee, ghost crab and migratory shorebirds. These are all interconnected and hugely important to Traditional Owners.

Many of the features convey the outstanding universal value (OUV) of the Ningaloo Coast World Heritage property and is a great way to highlight the inherent link between natural and cultural values. The depth of knowledge contained within the Nyinggulu Seasonal Calendar is a testament to a genuine joint management relationship between Traditional Owners and the State government on the Nyinggulu Coast.



# Thanardinyungujarri - Nyinggulu seasons

## Nyarlba – spring time

(August, September, October, November)

It is the birthing season, wildflowers are blooming, attracting the jarabarndi (burrowing bee) and nyabarra (ants). The flowers and the ants attract nganaraji (thorny devil) and jirribarri (echidna). Following the winter rain there is plenty of food and land animals are fat. There is also plenty of coastal food available.

Munungu (green parrot fish) are fat now and easy to spear when they come in on the tide to feed. Guwirda (quandong) are ripening: they are good for turkeys, emu and people.

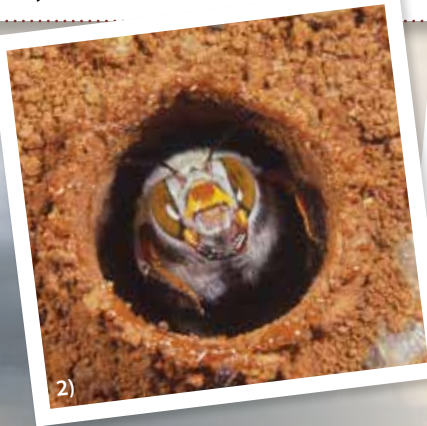
Ghost crabs are important to Traditional Owners. We collect them to make our own traditional burly.

Jarabarndi burrowing bees nesting time is now, Nyarlba season. They nest mostly in salt marsh areas close to sandhills. Their main food source is the bluebell flower, the queen bee lays an egg, which forms into a grub old people dig and eat, it's very high in protein and vitamins. We call it nyiburda.



4)

1)



2)



3)

## Bulhuwanguli – cold time

(June, July)

The easterly wind is blowing—it is very cold and the air is dry. Now we turn to the land for food. Warnan (the winter rain) is a good source of nutrients for the thanardi (the ocean). Bilarna wanggayi clouds are talking, and walybara chain lightning big rain is coming, all living creatures on Country prepare themselves.

A favourite time for us is a few weeks after a good rain: the Country is green, there's plenty of food and it's time to go hunting.

Gagula (bush bananas) grow up after the rain, and bardurra (turkeys) and bunggurdi (kangaroos) are nhulgan (fat): red kangaroos fatten first as the 'blues' are carrying young.

Nyinggulu jurirri (pointy-nosed emperor), ngarrara (spangled emperor) and wuruwuru (bluebone) are fat.



6)

5)

Nyarlba (spring time)

Bulhuwanguli (cold time)



### This page

- 1) Cumulonimbus clouds bring rain. Photo – Len Stewart/Lochman
- 2) Jarabarndi (Dawson's burrowing bee). Photo – Jiri Lochman
- 3) Mulla mulla. Photo – Matt Prohet
- 4) Ghost crab. 5) Kangaroo with joey. 6) Humpback whale. Photos – DBCA

### Opposite page

- 7) Grey plover (*Pluvialis squatarola*). Photo – Jiri Lochman
- 8) Majun (turtle) hatchlings. Photo – Meghan Segers
- 9) Gagulara (bush tomatoes). Photo – DBCA
- 10) Gujawari (whale shark).
- 11) Gajalbu (emu) at Cape Range National Park. Photos – Tourism WA



7)



## Thubayurri – hot time

(December, January, February)

The visiting shore birds that come to Nyinggulu, they are referred to as garrbarjarri gayirrinynghu, they come from long way, and they travel at night.

This is the hottest season, jirri (mirages) are seen on the horizon. Hot easterly and south-westerly wabirri (winds) blow. It is the start of the cyclone season: cyclones bring rain and life. It is the mating season for many animals. The life cycle begins... We watch for wabagu (eagles) along the roadside and look after them by moving any roadkill into the bush. Eagles are an important totemic species, and mate for life.

Coastal Aboriginal people have a strong connection with wilarra (the moon) and the tides. The tides tell us what's happening on Country and tell us when it's the right time for fishing and hunting. Wilarra also shows us future weather: a halo around wilarra tells us that he is holding the moisture and that a long hot summer can be expected.

Wilarra thunthumurdu ngurndayi: small moon, best time for hunting and collecting on the reef, especially at night.

Our Aboriginal astronomy is the star of our dreamtime story. Baiyungu, Yinigurdira and Thalanyji people have deep connection to astronomy. It guides us on what food is available at every stage of the year.

Majun (green turtles and loggerhead turtles) are nesting.



8)

## Biyardi – warm and dry time

(March, April, May)

Gajalbu (emus) are mating, so don't hunt them. If there is no food around, they will put mating on hold. Male gajalbu are building up their strength—becoming fat—ready for sitting on the nest and then taking care of wimbiljarri (chicks). Thurru (caterpillars) travelling in lines tell you gajalbu are laying gawungga eggs.

Gajalbu are hatching. Thalu is an increase site where gajalbu become plenty. Gajalbu will always return to their dreaming place with their wimbiljarri (young chicks).

Bardurra (turkeys) are laying eggs. Dugongs are birthing and are resting in the Exmouth Gulf (nursery ground).

Large coral spawning events occur in accordance with the moon. The Old People used to do traditional burning at the right time, reading Country to know when to burn. Fire is important in the cycle of life and renews Country.

Turtle eggs are hatching. Gagulara (bush tomatoes) are eaten by bardurra (turkeys) and gajalbu (emus) throughout the year.

The ocean is nourishing and there is plenty of food for our visitor gujawari (whale shark). Many juvenile males visit Nyinggulu.

Pink-red algal slicks can be seen on the ocean.



9)



11)



10)

**Hazel Walgar** is a Baiyungu Elder Cultural Advisor with DBCA's Parks and Wildlife Service in Exmouth. She can be contacted at [hazel.walgar@dbca.wa.gov.au](mailto:hazel.walgar@dbca.wa.gov.au)

**Felicity Kelly** is a Visitor Interpretation Officer with DBCA's Parks and Wildlife Service in Exmouth. She can be contacted at [felicity.kelly@dbca.wa.gov.au](mailto:felicity.kelly@dbca.wa.gov.au)