



The Twines Storybook

“There’s Noongar spirits here.”

– Noongar Elder Theo Michael



Kaya (hello)!

We hope this storybook, one in our series about special places in Noongar **boodja** (country), inspires you to learn more about Noongar boodja and culture, and deepens your respect, love and care for our **kwobadak** (beautiful) boodja.

Wheatbelt NRM thanks Noongar Elder Theo Michael and other Noongars for sharing some of their **katadjin** (knowledge) about the Twines in this storybook. Their words come from a December 2011 video at the Twines and yarns held in 2015. Noongar katadjin remains the intellectual property of Noongar communities. We also thank Nyakinyaki traditional owner Ricky Nelson for his support for this storybook. Theo and Ricky share great grandparents William Nelson and Eliza (nee Abraham).

Kerry Collard, Aboriginal NRM Project Facilitator
Wheatbelt Natural Resource Management Inc



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WARNING

Aboriginal and Torres Strait Islanders are advised that this book contains names and images of people who have passed away.

Noongar English

Noongar	English
Noongar / Nyungar / Nyoongar / Nyoongah / Nyungah / Nyugah / Yungar / Noonga	person or people / collective name of the various groups of south-west WA's Aboriginal people
budjar / budjara / boodja / booja	country of origin / belonging / earth / land / ground
katadjin / katitjin	knowledge
kwobadak	beautiful
ngama / gnamma	hole in rock that holds rain water

There are several Noongar language groups and the languages weren't traditionally written. That's why different words and spellings exist. Noongar language sources in this book include Theo Michael and:

- www.noongarculture.org.au/language (accessed 16/4/15)
- *Nyungar Budjara Wangany: Nyungar NRM Wordlist & Language Collection Booklet of the Avon Catchment Region*, Wheatbelt NRM, available at www.wheatbeltnrm.org.au
- Batchelor Press Noongar language publications including *Noongar Waangkiny: a Learner's guide to Noongar* Batchelor Press 2014, second edition © Noongar Boodjar Language Centre 2015, available at www.noongarboodjar.com.au

**“This is a very special place, culturally.
And there’s spirits. Noongar spirits here.
And by the time we get home, you’ll have an experience.
Someone from here will have an experience.**

**I said the same thing to a group of people on this same spot.
We walked half way down to where we saw the eagle sitting up the rock.
And this woman came and said to Mort Hansen, my nephew, she said,
“Mort, can you see them people up there walking around with little kids?”
She could see kids playing and old people yarning up on the hill.
And she was crying. She was a white woman from the Health Department.
She was crying. The spirit had touched her.
She said she was happy she came on the trip.
She now had more understanding of Noongar culture
and was spiritually touched.”**

– Noongar Elder Theo Michael

The Twines is a huge granite outcrop in the Twines Reserve, near Narembeen, in Noongar **boodja** (country) of south-west Western Australia.

The Twines has dreamtime stories and many life-sustaining **ngamas** (gnammas/rock holes that hold water). It is a very sacred Noongar place.

The Twines is in the Southwest Australia Ecoregion – one of only 34 internationally recognised biodiversity hotspots on Earth.

Theo Michael: "I was born in Kellerberrin in 1943. I'm a Keller fella. My dad Theo (Mick) Michael. He worked around Jennacubbine and Wongamine. My mum Vera Mead, a Quairading girl, sister to Aunty Myrtle Yarran.

We lived in Quairading. My dad taught me a lot about the bush and culture when I was young.

I worked around the Northam, York, Quairading, Pantapin, Yoting and Kwolyin areas cutting jam posts for fencing, hay carting, shearing, farm work, ploughing, seeding and harvesting.

After I moved to Perth in 1978 with my wife Mary and my family, I used to come back for working holidays on Keith Comely's farm near the Twines.

One time, about 1983, it was really hot. I took a

break from harvesting and came to the Twines and saw these beautiful, cool **ngamas**.

Written on the post there it says it was discovered in 1981. But Noongars were here long ago."

Wheatbelt NRM's **The Badjaling Storybook** is about the Noongar community in Quairading. The Michael's campsite is among the Noongar families' campsites marked there.

Ngama



Theo: "People needed these ngamas for water. There's about seventeen ngamas there. There's spirits in them. When we arrive, we ask the spirits to take care of us. Some people throw sand in, some people throw water in, some have a drink of water, to tell the spirits to look after them. We ask the spirits '**Warra wirn boolagar ngun. Moorditj wirn dut ngining**'. (Bad spirits go away from us. Good spirits stay here.)"

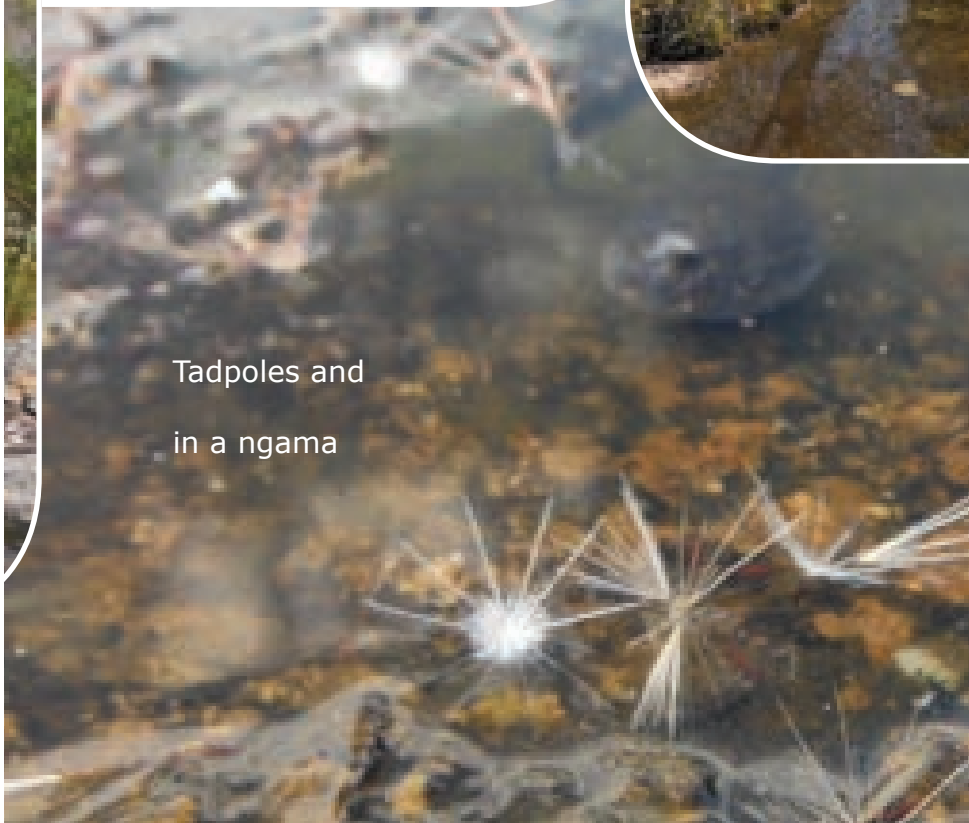


Sand thrown into a gnamma

Theo: "Need to clean these gnammas out or the spirits won't see you there."

Some of the gnammas around here are made by Aboriginal people. They used to burn the rock and then use a hard stone to break the rock."

Dr Brian Timms: 'Gnammas are... some of the oldest aquatic habitats in nature.' *



Tadpoles and
in a ngama

Noongar	English
<i>koora</i>	long ago / before / in the past
<i>kep / kabi</i>	rain / water
<i>kep yoowal / koorliny</i>	rain (winter) is coming
<i>warra / wara</i>	bad / wrong
<i>wirn</i>	spirit/s
<i>boolagar / boolyaka</i>	go away / gone away / gone off
<i>ngun / ngalany</i>	us
<i>moorditj</i>	strong / solid / hard / brave / good / clever / excellent
<i>dut ngining / nyin-iny</i>	stay here / be / sit / live / remain / dwell

* *The Quick and the Tough: Australia's Gnamma Animals* by Dr Brian Timms in **Wildlife Australia** Vol. 52 No. 2, Winter 2015

Aquatic fauna

larvae, midge

and roundworms.

Dr Brian Timms: "Southwestern Australia has by far the richest known gnamma fauna in the world. This is because the area has been geologically stable but climatically variable over an immense time, some 300 million years. ...the isolation of gnammas from each other promoted speciation.

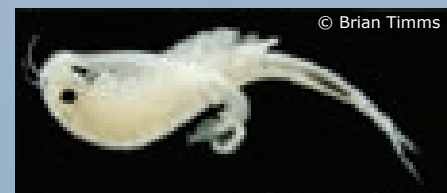
In no other habitat are you likely to see zero species one week and 50 three weeks later [after rain].

Fairy shrimps are some of the toughest life forms on Earth. Their eggs [0.25mm in size] are able to endure years of drought, waft hundreds of kilometres on winds and are often covered in spines to

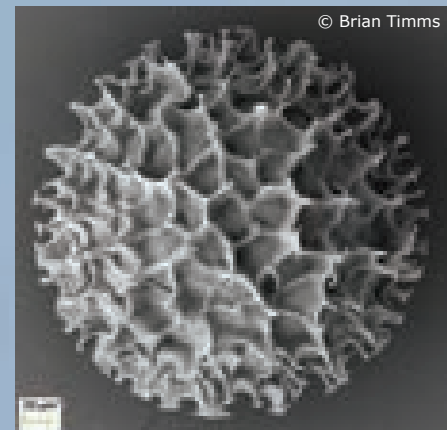
deter predatory flatworms. These are some of the many strategies of animals to meet the severe challenges of gnamma life, which include extreme dry, a transient wet period, limited food sources, high UV levels, vulnerability to predators and habitat isolation." *



Theo: "Long ago a Noongar man walked through here. He left his footprint."



© Brian Timms
Male fairy shrimp / *Branchinella longirostris*. They grow to 15mm.



© Brian Timms
Branchinella longirostris egg from Elachbutting.

Tiny crustaceans including *Daphnia jollyi* (freshwater crustacean) and *Triops australiensis* (Shield Shrimp) have been recorded in the Twines area.

Tiny fauna – in water, air or earth – are part of a 'life system' that lets other creatures like plants, insects, birds, reptiles and mammals survive.

Wheatbelt NRM's **The Derdibin Gnamma Storybook** tells more about Noongars and gnammas, how gnammas are formed, what lives in them, and how to clean gnammas.

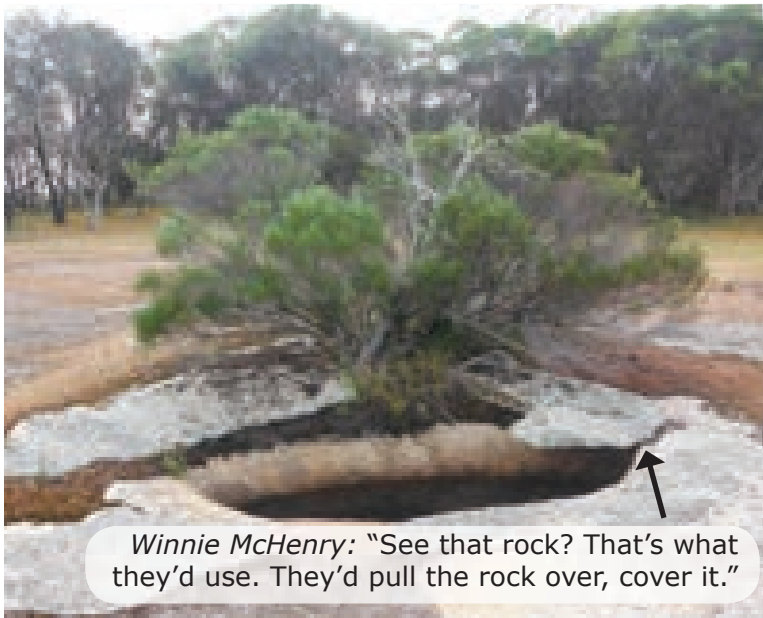
Theo:
 "Noongar
 people
 would look
 to the
warlitj to
 show them
 where the
 water holes
 were."



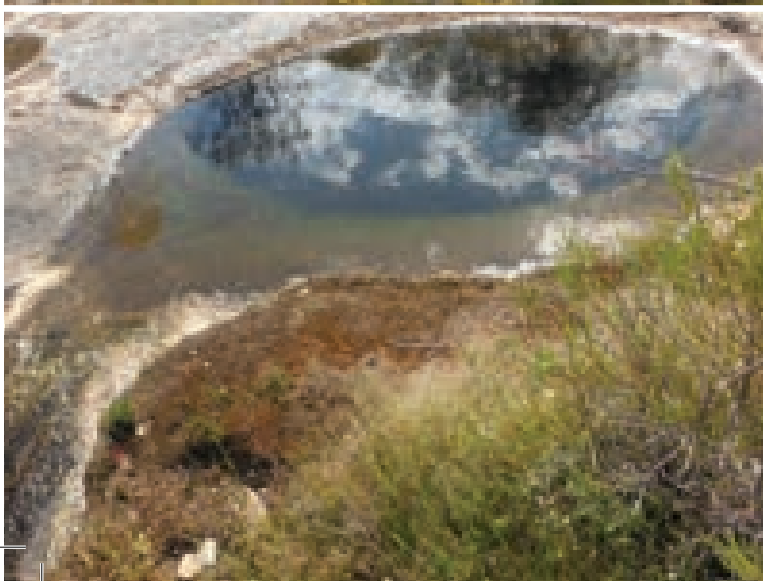
Djert

(birds)

Warlitj / Wedge-tailed Eagle / *Aquila audax*
 Photo: © Phil Lewis, June 2012, Mt Caroline



Winnie McHenry: "See that rock? That's what they'd use. They'd pull the rock over, cover it."



Some **djert** (birds) found around the Twines** are threatened, and some are not well known: more surveys are needed.

- Australian Pipit *Anthus novaeseelandiae*
- Australian Raven **Wardang** *Corvus coronoides*
- Australian Ringneck, Ring-necked Parrot *Platycercus zonarius*
- Barking Owl **Wiroo** *Ninox connivens connivens*
- Black-faced Woodswallow **Bewoen** *Artamus cinereus*
- Blue-breasted Fairy-wren *Malurus pulcherrimus*
- Broad-tailed Thornbill, Inland Thornbill **Djoolbedjoolbong** *Acanthiza apicalis whitlocki*
- Brown Goshawk *Accipiter fasciatus fasciatus*
- Brown Honeyeater **Djindjoko** *Lichmera indistincta indistincta*
- Brown-headed Honeyeater *Melithreptus brevirostris leucogenys*
- Bush Stone-curlew **Wilo** *Burhinus grallarius*
- Common Bronzewing **Moyitj** *Phaps chalcoptera*
- Crested Bellbird **Bokonbokon** *Oreoica gutturalis gutturalis*
- Crested Pigeon **Kakara** *Ocyphaps lophotes whitlocki*
- Elegant Parrot *Neophema elegans carteri*
- Grey Butcherbird *Cracticus torquatus leucopterus*
- Grey Shrike-thrush **Koodelong** *colluricincla harmonica*
- Malleefowl **Ngawoo** *Leipoa ocellata*
- Rainbow Bee-eater **Birrongawu** *Merops ornatus*
- Red Wattlebird *Anthochaera carunculata woodwardi*
- Regent Parrot **Kuran** *Polytelis anthoepus anthoepus*
- Rufous Whistler **Bambon**
- Southern Scrub-robin **Djibot** *Drymodes brunneopygia*
- Spiny-cheeked Honeyeater *Acanthagenys rufogularis*
- Striated Pardalote *Pardalotus striatus substriatus*
- Weebill **Kiderbot** *Smicrornis brevirostris orchrogaster*
- White-eared Honeyeater *Lichenostomus leucotis leucotis*
- White-fronted Chat **Yabawilban** *Epthianura albifrons*
- Willie Wagtail **Djidi-djidi** *Rhipidura leucophrys leucophrys*
- Yellow-rumped Thornbill **Djidbot** *Acanthiza chrysorrhoa chrysorrhoa*

Some Noongar words for the birds above are from **Aboriginal names of bird species in south-west Western Australia, with suggestions for their adoption into common usage** by Ian Abbott, Department of Conservation, published in Conservation Science W. Aust. 7 (2) : 213-278 (2009).

Note: There are multiple Noongar names for many birds.

** NatureMap Species Report created on 02/06/2015 showing species current in a 10km radius of the Twine Reserve.



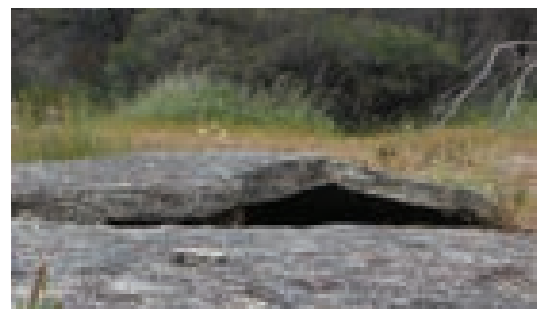
Theo: "The **yanjet** (bulrushes) there, they're his whiskers. The snake. The **Wargle.**"

Djurrang

(reptiles)

Some reptiles found in the vicinity of the Twines* include:

- Bright Crevice skink / *Egernia richardi*
- Unpatterned Robust Slider / *Lerista macropisthopus subsp. macropisthopus* (which looks like an earthworm with four tiny legs)
- Bardick / *Echiopsis curta* (a snake)
- Gould's Hooded Snake / *Parasuta gouldii*
- Ringed Brown Snake / *Pseudonaja modesta*.



Above: a natural rock formation that reptiles can shelter in.

Lizard traps

Kevan Davis: "Sometimes yaps still there. A lot of people, not knowing, wreck them."

The old people would get a thin granite slab about 10cm thick and a metre square. They'd prop it up at one end to a height of about 10cm using one or more smaller stones. When Noongars were hunting lizards to eat, if a lizard ran into a trap, it would be stuck with nowhere else to run, and eventually get caught.

The Wargle and the kep (rain)

Theo: "I'll tell ya a yarn about Kellerberrin. A farmer needed rain for the crops. He said to my grandfather Ngweeyal (aka Tommy Cowan, RIP), 'Hey Tommy, you make it rain for us. I'll give y y pounds.'

Ngweeyal thought, 'Fifty pounds is a lot of money. I'll make it rain.' So he went to **waangkiny** (talk) to the Wargle.

Anyway, it never rained that night. My dad (RIP) teased the old man, 'Hey Tommy, what happened to the snake? It didn't rain.'

This made old man Tommy angry. 'I'll make it rain today. You watch.' Tommy

went back there. Shook the grass. Old snake was there. He made the snake wild. Whoooooooh... the ground started shaking. One big black cloud appeared.

Tommy walked back to the farmer. The rain came down. Whoosh. Oh, it rained.

Mulgar, thunder and lightning.

The **wadjala** (white person) farmer wanted to give him y pounds to make it stop raining."

There's a photo and another story about Ngweeyal (old man Tommy) at the end of this book.

Noongar	English
<i>Wargyl / Wargle / Waakal / Wargal / Warrgul / Waargle / Warkarl</i>	spirit snake / the creator of the Noongar universe and the giver of Noongar lore
<i>yanjet</i>	bulrushes
<i>djurrang</i>	reptiles
<i>norn</i>	snake
<i>waangkiny</i>	talk
<i>mulgar / malkar</i>	thunder
<i>wadjala</i>	white person



Left: Sundew
(*Drosera rupicola*)

Sundews are carnivorous. Their sticky goo attracts and traps insects. They secrete enzymes to dissolve the insect into a nutrient soup which they absorb through the leaf surface.



Above: Tangle Triggerplant
(*Stylidium dielsianum*)

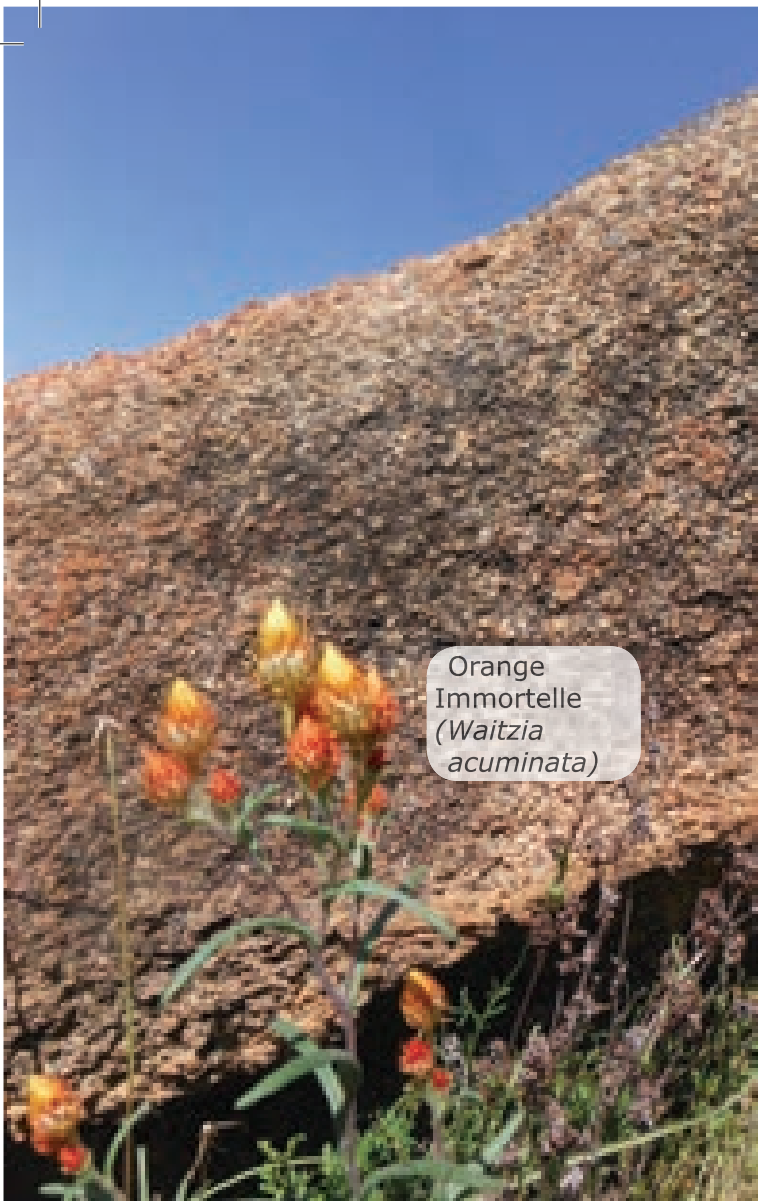
One hundred and forty-one different orchids have been recorded on WA granite outcrops: 22 appear nowhere else in the world.**

** *Life on the Rocks: The Art of Survival*
by Philippa Nikulinsky & Stephen D. Hopper,
Fremantle Press, 2008

Plants

Below: Sun Orchid
(*Thelymitra* sp.)





Orange
Immortelle
(*Waitzia
acuminata*)

Some plants found around the Twines are not well known and need more surveys to see if they are threatened.*

- Acacia bidentata*
- Acacia cracentis*
- Acacia graniticola*
- Acacia leptopetala*
- Acacia lineolata* subsp. *lineolata*
- Acacia moirii* subsp. *recurvistipula*
- Acacia rossei*
- Acacia* sp. *Merredin* (B.R. Maslin 586)
- Acacia sulcata* var. *platyphylla*
- Acacia yorkrakinensis* subsp. *acrita*
- Allocasuarina spinosissima*
- Aluta appressa*
- Banksia densa* var. *densa*
- Brunonia* sp. (K.R. Newbey 6044)
- Calectasia valida* subsp. *petraeus*
- Conostylis argentea*
- Cyathostemon heterantherus*
- Dodonaea viscosa* subsp. *angustissima*
- Ericomyrtus serphyllifolia*
- Eucalyptus aequioperta*
- Eucalyptus burracoppinensis* **Muruk/moorook** (Burracoppin Mallee) subsp.
- Eucalyptus kondininensis* (Kondinin Blackbutt)
- Eucalyptus myriadena* subsp. *myriadena*
- Eucalyptus myriadena* subsp.
- Eucalyptus olivina*



Granite Kunzea
Kunzea pulchella

Eucalyptus platycorys (Boorabbin Mallee)
Eucalyptus wandoo **Wornt** (Wandoo, Wondu)
Eucalyptus wandoo subsp. *wandoo*
Eucalyptus yilgarnensis (Yorrell)
 (Wodjil Poison)
Gastrolobium spinosum (Prickly Poison)
Grevillea excelsior (Flame Grevillea)
Hakea multilineata **Djanda** (Grass Leaf Hakea)
Hypocalymma uncinatum
Isoetes australis
Isoetes brevicula
Isopogon divergens
Leucopogon sp. *Wheatbelt* (S. Murray 257)
Melaleuca brophyi

subsp.

Melaleuca pungens
Melaleuca scalena
Melaleuca villosisepala
Myriophyllum petraeum (Granite Myriophyllum)
Nicotiana rotundifolia (Round-leaved Tobacco)
Petrophile glauca
 (Slender Phebalium)
Phebalium tuberculosum
Pterochaeta paniculata
Stackhousia muricata
Stackhousia sp. *Hairy fruited* (E.N.S. Jackson 1387)
Stylidium neglectum (Neglected Stylidium)
Stypandra glauca (Blind Grass)
Synaphea interioris
Thryptomene australis subsp. *australis*



Hakea trifurcata



Kwowdjard
One-sided Bottlebrush

Flowers are sucked for their nectar. Flowers can also be made into a sweet drink when soaked in water.**

** www.sercul.org.au/bushtucker/BushTuckerFactSheet_One-sidedBottlebrush.pdf

Habitats on the rocks

Ngama/gnamma:

plants and perennial
resurrection plants

depressions:
Pincushion lilies,
orchids, ferns,
sundews, clubmoss,
triggerplants, grass

Many organisms – bacteria, fungi, plants, microscopic invertebrates, insects, reptiles, birds and mammals – live together and interact with each other, and with their environments, on and around the special habitats on granite outcrops.

Massive rock surfaces:
Cyanobacteria, lichen,
moss and more

Fractures: Trees can get
their roots deep down



**Exfoliated slabs and A-tents:
Spiders, insects and lizards**

On granite outcrops *sunlight + rapid run off of rain + shallow soils + a rocky surface* accentuate changes from *day to night*, and *season to season*.

Plants, animals and other organisms have evolved to survive these combined stresses. Some species are only found in the special habitats around the granite outcrops of WA's south-west, and nowhere else on Earth.



**Fringing
vegetation**

**Boulders: Shelter for bats,
wallabys, numbats, quendas,
possums, phascogales,
dunnarts, woylies, dingoes,
echidnas and reptiles**

Theo: "Another special place is Mulka's Cave. It's not very far away from the Twines."

It may seem like not much could live on granite. But take a closer look and you'll see there's plenty of life on the rocks.

Lichen

Lichens aren't plants. They are green algae living together with fungus, or blue-green algae living together with fungus in cyanobacterial lichens.

Cyanobacteria

These bacteria photosynthesize: when exposed to light they turn water and carbon dioxide into 'food' and release oxygen. They produce much of Earth's atmospheric oxygen. They have lived on Earth for 2.7 billion years.

Koodah (friends)

The partnerships that make lichen are more than one billion years old. The food produced by the algae or cyanobacteria is used by the fungus to a surface, protect the algae or cyanobacteria, and gather moisture and nutrients. Acid from lichen breaks down rock to gather nutrients. This helps create new soil.

Lichen

& moss

The **dwert** (*dingo*) and the **waitj** (emu)

Theo: "At Mt Stirling there's dark marks on the rock.

My old man said, 'Dingo chased the emu on the side of the rock. The emu fell and killed himself where the rock was too steep. The black moss on the rock, that's the emu's blood.'

Moss often grows together with lichen. Mats of moss on rock:

- are like sponges that hold water long after rain falls
- insulate the granite surface from changes in temperature between night and day, and between seasons.

That's why other plants are able to grow on moss mats. Some orchids grow their tubers beneath moss mats. Other plant species, including trees, can germinate in moss mats but may dehydrate and die when moisture runs out.

Moss

**A seed
blown by the
wind and
caught in
the moss**

Photos: stills from Wheatbelt NRM video (not publicly available) at the Twines, December 2011.

Elders visit

*Alidja Waalitj!
Ngany djinang
aliny yirak
worl-ak.*

(That's an eagle!
I see it high up
in the sky.)

In December 2011, Theo showed members of the Wheatbelt NRM Aboriginal Advisory Group and others around the Twines. They were greeted by a **waalitj** (eagle).

Winnie: "Eagle! Noongar spirit! He's checking us out. It's good."



Theo [to the spirits]: "Noongar people and **wadjala** people (white people), take good care of us. And go away with a good feeling from this place."

Kevan: "It's important when we do something like this there's the man in charge. [Kevan indicated Theo.] He walks in front. We will follow him. Don't go in front of him. He knows."

Left: Theo Michael and Kevan Davis



Theo: "Have a look at that footprint!"

Theo: "My dog fell in a ngama at the Twines. When he fell in he saw a snake there. [Not a physical snake, the dog sensed a spirit.]

Growl, growl, he tried to talk to me to drag him out.

When he got out he ran to the motor car straight away.

Yeah, it frightened him. 'Let me outta here! Let me out!'"



Debbie Moody: "Uncle Theo, is it alright to put the stick in? See how deep it is." *Winnie:* "Needs cleaning out."



Kevan: "My old Uncle Mick Garlett (RIP) told me one time, he said one day all the Noongars are going to be gone from the land.

He said in their place there will be an animal like an eagle or a kangaroo, something there that will be the spirit that looks over this area."

Wheatbelt NRM Aboriginal Advisory Group

This group of up to ten Noongar members has extensive traditional ecological and cultural knowledge, plus wide networks in the Noongar community.

The group guides Wheatbelt NRM to develop and review Aboriginal NRM projects, and suggests Aboriginal people to involve in projects.

The group meets four times a year.

Ian Bayly: 'Although no longer of significant survival value, gnammas still stir the hearts of Indigenous Australians for their spiritual and cultural values, and there are encouraging signs of a revitalised cultural focus on gnammas. Gnammas ... have played an outsized role in Australia's past. If it were not for gnammas and other small bodies of water, and the extraordinary ability of Indigenous Australians to find them, much less of the continent would have been inhabited, and Aboriginal and colonial history would have been very different.'*

* *The Importance of Gnammas for Indigenous Australians* by Ian Bayly in **Wildlife Australia** Vol. 52 No. 2, Winter 2015



Photo: Theo Michael's collection

Theo Michael (second from left) and Mort Hansen (far right) with a group of visitors at the Twines.

Theo: "When we go to the Twines we feel calm and relaxed. We feel that there's something good there. Someone in the group usually hears something or sees something.

We explain our culture to **wadjalas** (white people), to try and help them understand. But there are some things too secret to tell.

I took a lot of people out there. Two busloads of DCP (Department of Child Protection) including the Director General. On the way, I told them other things that happened there along the way.

'In the town of Narembeen', I said, 'this is **Noongar** country, **Nyakinyaki** country, next to **Ballardong** country', to give them an idea of where they are. Rocks

and hills and rivers mark the boundary between Ballardong country and Nyakinyaki country.

We sit down talking to help people get an understanding of where they are, what land they're on, and what Noongar people believe.

We want to explain about this country to help people look after this country for our children."





Theo Michael
with his dad Theo (Mick) Michael

Photo: Theo Michael's collection



The Wargle teaser: old man Tommy Cohn/Cohan/
Cowan (Ngweeyal/Ngwarl/Granny Nweelyal) at
Yoting, late 1950s or early 1960's.

Munyari (Ralph Winmar) (RIP): "Old Tommy Cohan was a strong man. He was one of the main Warkarl teasers.

Sometimes there in the old days it would get pretty hot and everything drying up. And all the Nyungars would be standing around nodding their heads. 'See how hot it is!'

Then the old people would say, 'Hey, that old warkarl, (water snake) he's forgotten his people!'

So they pick out some strong men to go and pull that warkarl out of his cool place in the yanjet (bulrushes). He doesn't want to come out, and he tries to wrap his tail around a rock or a balga (grass tree).

But they pull him out, and they throw him on the hot sand and tease him. 'Now warkarl, see how hot it is. Have you forgotten your people? Send us some rain.' And the warkarl twists and turns on the hot sand and he doesn't like it.

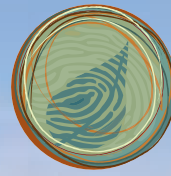
So pretty soon up in the sky the little clouds come, like the scales on the warkarl's belly. And the people know that the rain will soon come and the warkarl hasn't forgotten his people."

Photo and story from **Walwalinj: The Hill That Cries - Nyungar Language and Culture** by Munyari (Ralph Winmar) (RIP) published by Dorothy Winmar in 1996.



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