



POEM FOREST

Write a poem. Plant a tree.

Nature Poetry Prize
Learning Resource



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Layne Brown

Image: Harold Barrientos

Acknowledgement of Country

'Revelries, visions, water and sleep.

We came of age in that place

As he put my head on the rock and my heart in sand

And demanded that I feel the pulse of the land'

~ Loki Liddle from 'Angus'

Red Room Poetry and Wollongong City Council acknowledge the Dharawal and Wodi Wodi Elders, Custodians and emerging leaders of the lands, waters and sky where the POEM FOREST grows.

We also respect and acknowledge First Nations people across the many lands where we live, work and write. We are grateful to collaborate with First Nations communities who have cared for Country for millennia.



Do you know what First Nations land you live on? - How do you and your school acknowledge and care for Country?



Welcome to POEM FOREST



School tree planting workshop
Image: Tawfik Elgazzar

'I love nature, and I really don't mind if I win.
What matters to me is that a tree is
planted. I think that we need to plant more trees
to help save our environment and POEM
FOREST is perfect for that.'
~Henrietta P, Year 7, Wenona School (NSW)

Created by **Red Room Poetry**, in collaboration with **Wollongong City Council** and **Botanic Gardens of Sydney**, POEM FOREST is a free nature poetry prize that invites students and teachers to use their words to make positive climate action. For every poem received a tree is planted to help heal habitats and create a POEM FOREST for future generations.

POEM FOREST is open to students and teachers
(Foundation–Year 12) with over \$5,000 in prizes to win!

Every poem breathes life back into the world that
sustains us. We can't wait to read yours!

The POEM FOREST team.

More Information

w: redroompoetry.org/projects/poem-forest
e: poemforest@redroompoetry.org
t: 02 9319 5090

Key dates

- **POEM FOREST Prize opens**
Thursday 21 March 2024
- **Submissions close**
5pm Friday 27 September 2024
- **Shortlist and poems published**
in October 2024
- **Winners Announced**
in November 2024
- **POEM FOREST trees planted**
with Wollongong City Council

HOW TO ENTER

- 1 Read the POEM FOREST resource and commissioned poems. Connect with nature for inspiration. Complete the writing prompts.
- 2 Draft your own 20 line nature poem using this template. Review and edit your poem.
- 3 Enter your final poem via the online form.

Terms and Conditions

redroompoetry.org/projects/terms-and-conditions

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POEM FOREST in the Classroom

The POEM FOREST Prize creates positive climate action by inviting students and teachers to write and publish poems inspired by nature.

Every poem received will become a tree planted on the traditional land of the Dharawal and Wodi Wodi people in Wollongong where Wollongong City Council is helping increase critically low canopy cover by planting trees and plants across the LGA.

As well as healing habitats for future generations, all poems are in the running to win over \$5,000 in prizes.

Using this Learning Resource

This curriculum-linked Learning Resource is designed to support students and teachers to find inspiration before composing their poems.

It features a range of multi-modal **Pre-Writing Prompts** and **Nature Case Studies** to enrich curriculum outcomes across English, Science, Sustainability, First Nations Histories and Cultures, The Arts, Humanities, Social Sciences and Technology.

As POEM FOREST is open to students from Foundation to Year 12, activities can be adapted to suit different age groups. The order of activities is flexible, although we recommend delivery over two to three lessons to allow students to reflect, conceptualise and respond.

Inspiration and Activities is divided into two sections: **Poetry Prompts** and **Nature Case Studies**. These warm-up activities are designed to help students engage with nature through sensory experiences, poetic examples, creative thinking and research skills that strengthen language, literature and literacy.

Commissioned Poems exemplify a range of poetic techniques and give students insight into different voices, styles and perspectives. **Inspired Activities** draw on these poems and reflections, providing students with extended writing prompts to support their own creative process.

Additional guidance is provided on how students can identify and avoid clichés, develop specific imagery, as well as use prompts and strategies during their own writing process. The **Editing Checklist** gives guidance on the process of drafting, editing and **Peer Review** fosters critical thinking, active reading and comprehension skills.

Created with Wollongong City Council, **Nature Case Studies** provides information to deepen students' understanding of science, sustainability and the natural world. Students are encouraged to use Case Studies to further develop inquiry skills and help inform ideas for their poems through real-life contexts.

Icon Guide



Student
Handout



Teacher
Resource



Online
Resources



Audio



Video



Sustainability



First Nations
content



POEM FOREST Getting Started

Resources include:

- Commissioned Poems, Reflections and Audio
- Pre-Writing Prompts and activities to enhance poetic techniques
- Judging Notes and Quality Criteria
- Poem Template and Peer Review
- Nature Case Studies
- Local environmental actions

1 In class, introduce the POEM FOREST Nature Poetry Prize by sharing the [Welcome \(page 2\)](#).

Explore the topic of **nature** by having students brainstorm words or images associated with it. Encourage students to mention: *ecology, habitat, sustainability, and threatened species*. Research definitions for key nature words like *biodiversity* and *ecosystem*.

>> See pages 46–50 for A-Z of Life Forms and Their Roles in the Forest



Primary students may be invited to fill out the first two columns of the [KWL chart](#).

Have students look at a [gallery](#) of nature images.
For each image, ask See-Think-Wonder questions.
What do you see? Look at the details.
What do you think about when you see the image?
What does it make you wonder about?
Is there anything else you want to know?

Secondary students can brainstorm ideas about how they might engage with and study nature. Elicit responses, such as: *visit national parks or botanical gardens, research climate issues and activists, join a local land care initiative, start a school compost or install nesting boxes*. Divide the class into small groups and have them plan and prepare one of these ideas.

>> See page 19 for Pre-writing Prompts and Activities for inspiration

2 As a group or individually, invite students to read and listen to the **Commissioned Poems** and **Reflections**.

3 Explore **Activities Inspired by** the poet. Complete the **Pre-Writing Prompts**. Consider **Extension Activities**.

4 Invite students to draft their own nature poem and reflection. Edit and peer review.

5 Enter final poem in the POEM FOREST Prize via the [online form](#) for publication as a digital literacy task.



School poetry workshop with Lucy Norton
Image: Tawfik Elgazzar



POEM FOREST Workshops

Nature Excursions and Poetry Workshops

To enrich your POEM FOREST experience, Red Room Poetry and Wollongong City Council offer curriculum-aligned excursions and incursions for all educational levels across Primary and Secondary. Students are engaged through active poetry writing workshops or immersive, hands-on learning in nature.

Wollongong City Council are offering a seedling to all students who enter the POEM FOREST prize and live or study on Dharawal and Wodi Wodi Country in the Wollongong LGA. When you submit your poem via our online form you'll receive a voucher to collect your seedling from Wollongong Botanic Garden's Nursery.

They also offer free online resources with engaging research for students of all ages, including how to safely plant your seedling in your own backyard or balcony! You can find them here.

Digital Workshops

Book free digital poetry workshops delivered by Red Room Poetry and Wollongong City Council in partnership with DART by clicking the booking links below:

Primary

World Environment Day
5 June 2024

National Science Week
13 August 2024

Threatened Species Day
9 September 2024

Secondary

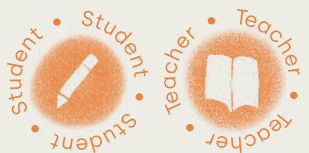
World Environment Day
5 June 2024

National Science Week
13 August 2024

Threatened Species Day
9 September 2024



School nature poetry workshop with Dakota Feirer and Lucy Norton
Image: Tawfik Elgazzar



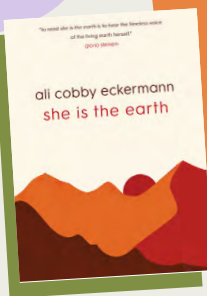
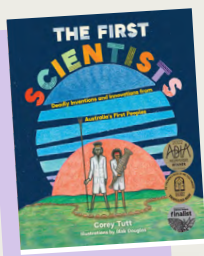
POEM FOREST Prizes and Categories

Categories

- **Lower Primary (F–Year 3)**
- **Upper Primary (Year 4–6)**
- **Lower Secondary (Year 7–9)**
- **Upper Secondary (Year 10–12)**
- **Accredited Teacher (All ages)**

Publishing Outcomes

All entries will be published on the Red Room Poetry website in the digital POEM FOREST with a worldwide audience of 571,226+ readers.



Prizes

The following prizes will be awarded to the best poem in each category:

- **\$500 cash**
- **\$100 book pack from Magabala Books, Pantera Press and Hardie Grant**
- **'Wild Things' poster print from Wollongong City Council**
- **Poetry journal from Corban & Blair**
- **Judging notes and winner's certificate**

Highly Commended poets in each category will also be awarded a book prize.

Special Prize Categories

Threatened Species Prize (F–12)

will be awarded to the best poem written in response to Australia's threatened species. See the list of threatened flora, fauna and ecological communities. See **Prizes** for details.

Wollongong Community Greening Local Prize (F–Yr 12)

from Wollongong City Council will be awarded to students living or attending school on Dharawal and Wodi Wodi Country within the Wollongong LGA.

- **School Prize:** free school excursion/incursion and 30 free plants from Wollongong Botanic Garden for the best collaborative class poem, plus see **Prizes** for prize details.
- **Individual Prize:** \$50 voucher to spend at Wollongong Botanic Garden's Nursery for the best individual poem, plus see **Prizes** for prize details.

The Australian Botanic Garden Mount Annan Local Prize (F–12)

will be awarded to the best poem by a student living or studying on Dharawal Country within the Camden and Campbelltown LGAs.

See Prizes for details, plus a private tour of The Australian Botanic Garden for you and your family. Choose from a Sunset Spotlight Tour through Cumberland Plain Woodland, private First Nations Cultural Tour, or behind-the-scenes PlantBank and Nursery Tour.

See Terms and Conditions for eligibility



Judges

We're thrilled to introduce our 2024 POEM FOREST Prize judges!



Ali Cobby Eckermann

Ali Cobby Eckermann's first collection *little bit long time* launched her literary career in 2009. In 2013 Ali toured Ireland as Aust. Poetry Ambassador and won the

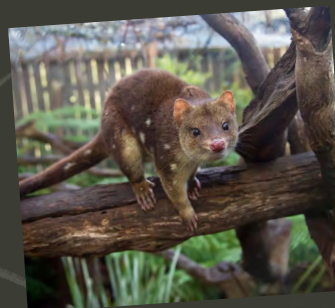
Kenneth Slessor Prize and Book Of The Year (NSW) for *Ruby Moonlight*, a massacre verse novel. In 2014 Ali was the inaugural recipient of the Tungkununga Pintyanthi Fellowship at Adelaide Writers Week, and the first Aboriginal Australian writer to attend the International Writing Program at University of Iowa. In 2017 Ali received a Windham Campbell Award for Poetry from Yale University USA. She was awarded a Literature Fellowship by the Australian Council for the Arts in 2018. In 2019 Ali was awarded a prestigious Civitella Ranieri Fellowship in Italy. *She is the Earth* is her new verse novel published by Magabala Books in 2023.



Corey Tutt OAM

Corey is a Kamilaroi man from Nowra, NSW, and a STEM champion for Aboriginal and Torres Strait Islander people. As a young person, he developed a love

of STEM subjects but found little encouragement for Aboriginal people to pursue careers in STEM. In 2018, Corey founded *DeadlyScience*, a not-for-profit organisation that provides STEM resources to remote schools in Australia and connects young Indigenous people with STEM professionals. In 2020, Corey was named the NSW Young Australian of the Year and a Human Rights Hero by the Australian Human Rights Commission. In 2021, he received an Australian Museum Eureka Prize and in 2022 a medal of the Order of Australia for service to Indigenous STEM education. Corey edits the *DeadlyScience* Australian Geographic series and has authored two books: the highly awarded *The First Scientists*, followed by *This Book Thinks Ya Deadly*.



Penny Hoswell

Penny is the Education Officer at Wollongong Botanic Garden, with a particular interest in compost, permaculture and Tiny Forests. She has worked in Tree Preservation, Waste Management and Education. She is part of the team at Wollongong City Council that plants the POEM FOREST trees, spreading them far and wide across the Wollongong LGA on Dharawal and Wodi Wodi Country as street trees, in local parks, natural areas, and backyards.



Pardis Mahmoudian

'Out of night's easy dwindling,
this gentle-ungentle thing comes out
stippled with mercy,
its trickle of jaw petaled
by a sacrificial goodness'

~ **Pardis M** from '**Quoll Under Daylight**'

Pardis is a Year 12 student at Hobart College, Tasmania. Her poem 'Quoll Under Daylight' was highly commended in the 2023 POEM FOREST Threatened Species Prize category. In her spare time, she likes to write and read about various animals.



Judging Notes



I believe story lives inside every one of us as humans, and as poets. Poetry can arrive at any time of our lives, and this is an exciting opportunity for you all.

The two most important lessons my Elders taught me in the desert were to have patience and to listen. These were not easy lessons because these lessons require a lot of practice. I feel poetry is like that. It is important to listen to your feelings and thoughts, to imagine a poem and that process benefits from practice. It is also a good discipline that you can use in all aspects of your life.

Many of you will have heard the Aboriginal saying we belong to the earth, the earth does not belong to us. Belonging is such a lovely feeling, and for me belonging to the earth is a blessing. I spend a lot of my time sitting in nature, in my backyard or along the river where the old trees reside. I love listening to birds, and also watching their behaviour. This settles me, especially if I have been feeling anxious or upset. After a while I can listen to my thoughts. When I feel relaxed I can focus on my imagination. This is my moment when poetry arrives.

There is no right or wrong when we write poems.

I love the concept of POEM FOREST because it is not only a competition. It is an invitation to be aware of who you are as an individual, and where you are in your surrounds. Poem Forest is an invitation to grow, as nature grows. Sit in the quiet of the natural world and write down your thoughts. Be as free as the air. You can do it. Trust yourself.

~ Ali Cobby Eckermann

>> **See page 28 for the full Quality Criteria**



INSPIRATION AND ACTIVITIES

POETRY PROMPTS



Jacqueline Suskin

COMMISSIONED POEM



Jacqueline Suskin is a poet and educator who has been teaching workshops, writing books, and creating spontaneous poetry around the world since 2009. She has composed over forty thousand improvisational poems with her ongoing writing project, Poem Store. Suskin is the author of eight books, including *A Year in Practice* (2023). Her work has been featured in various publications including the *New York Times*, the *Atlantic*, and *Yes!* magazine. As the Artist in Residence at Folklife Farm from 2019-2021, Suskin founded a retreat program and continues to host artists from around the world. In 2023, she piloted POEM FOREST Detroit

in partnership with Turnaround Arts and The Kennedy Centre. She lives in Detroit where she works as a teaching artist with InsideOut Literary Arts, bringing nature poetry into classrooms.

Jacqueline's Reflection

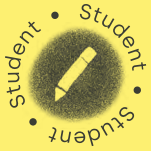
I spend a lot of time sitting with trees and it seems they always have something to say to me if I get quiet and listen. I find the messages are usually quite simple and direct. I like to think that there isn't much difference between my imagination and my intuition. Am I really hearing the trees talk? Or am I just telling myself what I feel the earth needs me to know? What's the difference? I like the way a poem and a forest can hold our biggest questions, provide interesting answers, and lead us deeper into understanding ourselves whenever we sit down to write, whenever we lean in and listen.

Read Jacqueline's full reflection [here](#)

>> **See page 14 for Activities inspired by Jacqueline**

Listening To Trees

I press my forehead against
an old growth redwood trunk,
twisted bark like thick fur
the color of rust. I step inside
its burnt-out core, a room created
by past centuries of fire, hollowed
as a giant cathedral but somehow
still growing taller. I lean against
the towering creature, branches
higher than any human reach.
Light filters in making a celestial pattern
and a spider hangs its home beside me.
I say *what do you need from me?* and stop speaking.
I feel my bones settle, my thoughts go silent.
The tree says—*take the time to listen,*
make the time to hear me.
This is its only request.



Philip Bunting

COMMISSIONED POEM



Philip Bunting is an author and illustrator, whose picture books deliberately encourage the reader to playfully poke around at the edges of their understanding. Philip's books have been published in over 35 countries around the world, in almost as many languages. Philip's work has received many accolades, including multiple Honours from the Children's Book Council of Australia, making the list for the Kate Greenaway Medal, taking home the inaugural State Library of NSW Russell Prize for Humour Writing,

and representing Australia at the IBBY Awards in 2022. Philip grew up in England's Lake District, just down the road from Mrs Tiggy-Winkle's place. He followed his heart to Australia in his early 20s, and now lives with his young family on Queensland's Sunshine Coast.

Philip's Reflection

There are thousands of species of mayfly around the world, each with so many wonderful characteristics. But they exist in the collective consciousness – or at least in my mind – as a symbol of the brevity of life. Many species of mayfly have only a single day to enjoy life in their adult form! 24 hours to live, love and die. They're a powerful symbol. Even on the aesthetic level, these beautiful little bugs are incredibly delicate, flighty and ephemeral.

'Are we here yet?' is a bit of a memento mori. I hope it prompts feelings of gratitude for what we have, and reminds us that Nature (all of it!) is ephemeral. Following the example of the mayflies in this poem, each day is best lived with all the joy, love, wisdom and wonder we can squeeze in. We're all here, right now. Let's make the most of it.

Read Philip's full reflection [here](#)

>> **See page 14 for Activities Inspired by Philip**





Didirri



Didirri grew up in the coastal Australian countryside, in the town of Warrnambool. He began writing songs as a challenge to himself to be honest. His candid storytelling comes from wanting to face the truth, however beautiful or confronting. His poetic lyricism began as a private conversation, that now brings hope to his

listeners. Didirri's second album *Caught In The Act* was released in 2023 and his *Don't Talk* Australian Regional Tour starts in March 2024.

Didirri's Reflection

The more I learn about evolution, the more I understand that we have been shaped by the planet so much. We owe it to the forest to really think about it as part of our lives, not a vacation destination. It was a real honour to be selected to write this poem for World Poetry Day and POEM FOREST. I have a lot of experience writing lyrics for music, but it is such a wonderful thing to write with the intention of reading, either out loud or internally. So thank you.

Read Didirri's full reflection [here](#)

>> See page 15 for Activities Inspired by Didirri

COMMISSIONED POEM

Budj Bim (Mount Eccles)

What a strange misunderstanding: to view the forest as separate from anything else we hold dear.

The forest is not someplace to visit,
nor is it a museum piece to be preserved.

It is our home.

When did we decide that we are different from this land?

We could protect the red gums, pencil pines, bottle brushes and she-oaks, yes.

But don't defend them because they are beautiful,
do it because they are ours.

Not to own but to live with.

To thrive alongside our environment and dance once again with our forgotten phantom limb.

Once, so much a part of us, we were absolutely inseparable.

Shaded by the very leaves that let us breathe.

We came out of this world, a very strange species of monkey.

For an incredibly brief amount of time, we have shaped parts of this place for our comfort.

Forgetting that we are happiest solving the simplest of nature's problems,
find food, sing as the birds do, and just be.

Even our most incredible attempts at representing the spectacle

of this place pale when struck by the rawness that the treelines and rivers even exist at all.

Why, on this stone in space (that should be as barren as the rest of the planets)

is there a sparrow, a fern, a desert, a mango, a father, anger, a gallery, a valley

Is it not enough to be a part of all of this?

Don't conserve this, love this, grow with it all.

Be a part of the world,
it is in our nature.

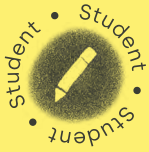


Fig Russon-Jorgensen



Fig is a 17-year-old emerging poet based in Brunswick. They have a deep passion for the arts that blossomed at a young age, growing up in a house full of books in rural Victoria. Their upbringing in the Australian bush greatly influences their work, as well as their experiences as an autistic person navigating a world designed for neurotypical people. Fig's creative interests also extend to music and visual art, and they are always working on something new.

Fig's Reflection

'i want to stay/i want to go/the universe is asking for me to come home' reminisces on my early childhood in rural Victoria, juxtaposed with the transition into adulthood and moving into the city. I recite feelings of nostalgia, drawing gentle comparisons between the two vastly different environments to illustrate the melancholy homesickness and the overwhelming loneliness that comes with leaving home. These ideas are woven into suggestions of seasonal depression, feeling the summer heat beneath the sunburn to an emotional level, grieving a past self.

Read Fig's full reflection [here](#)

>> **See page 15 for Activities Inspired by Fig**

COMMISSIONED POEM

i want to stay/i want to go/the universe is asking for me to come home

(is this what it feels like?)

i have to ask
because i have not seen
the sun set
in the entire time
that i have been
eighteen years old

because when i met you
the earth was cracked and dry
beneath my blistered feet

because it's coming into summer
and the days drag onward
but i'm sleeping more than ever

because the sun is yellow
not white, like you said
but all of it is nullified anyways

and i know you know
somewhere down sydney road
i'll find what i was looking for;

humid concrete bushland
old dirt roads in the big city
a flat horizon for the sun to land on

but is this it?
i have to ask



Activities Inspired by...



Jacqueline Suskin

1 Read and listen to Jacqueline's poem.

Jacqueline asks us to stop and listen to what nature has to say. Have you ever asked a lorikeet a question and heard its reply? Venture outside and start listening. **Describe** what you can hear around you and write **dialogue** for a conversation between you and a tree, a river or a wombat. What are their requests?

2 'Listening To Trees' is full of **simile** and **personification** - 'hollowed as a giant cathedral but somehow still growing taller'. How do these comparisons create **concrete imagery** and meaning for the reader? Use these poetic techniques to transform your conversation into a poem.

3 With her project Poem Store, Jacqueline has composed over forty thousand improvisational poems for people at

markets and train stations, who chose a topic in exchange for a unique verse. Team up with a classmate or friend and each write down a poem topic. Swap your topics and respond with a short, personalised poem on that theme. You might illustrate or handwrite your poem to create a tangible treasure.

>> See page 17 for more about POEM FOREST USA with Jacqueline



Philip Bunting

1 Read and listen to Philip's poem.

Philip uses the **visual metaphors**

of a mayfly and an infinity symbol to capture the idea of brevity within the cycles of nature and our own lives. **Research** and create a list of local environmental actions you might take to 'make the most of what we've got'.

Illustrate your list with metaphors to create a visual poem.

>> See page 51 for inspiration on local environmental actions

2 In his reflection, Philip tells us that historical research on the concept of *memento mori* from Ancient Greek culture informed his poem. Choose an ancient culture or historical fact to **research**. Create a **mindmap** and explore how your research might connect with nature. Experiment with **rhyme** and **wordplay** to craft your poem.

3 Philip shares the William Morris quote, 'have nothing in your house that you do not know to be useful, or believe to be beautiful.' **Edit** your finished poem by removing adverbs or cutting out your final line. Have you discovered a more authentic poem ending? Read your edited poem out loud. How has the **rhythm** or **cadence** changed?

>> See pages 25-26 for an Editing Checklist and Peer Review





Activities Inspired by...

Didirri



1 Read and listen to Didirri's poem. 'When did we decide that we are different from this land?' Didirri asks questions of his readers in the poem 'Budj Bim (Mount Eccles)'. How do they make you feel? Included, confronted? Think of a place in nature that is special to you. What **question** can you ask your readers about it? Add the question into your poem.

2 Didirri wonders whether art can ever fully capture the wonder of nature - 'even our most incredible attempts at representing the spectacle of this place pale'. How might you incorporate nature itself into your poem and bring them closer to alignment? Add a **leaf rubbing** from a nearby park, **bury your poem** in the soil, or make your own **recycled writing paper**.

3 Listing concrete imagery can be a creative way to summarise and contrast aspects of a special place in nature. 'Why...is there a sparrow, a fern, a desert, a mango, a father, anger, a gallery, a valley'. Create your own **list of images** that **describe** your favourite beach, bushwalk or balcony.



Fig Russon-Jorgensen



1 Read and listen to Fig's poem. Fig uses the **contrast** between the city and a rural environment as a

metaphor for the transition from high school to adulthood, moving from a familiar environment to an unfamiliar one. Think of two very dissimilar environments you've been in and write down three **descriptive phrases** for each of them. Use these descriptions to write a poem about change.

2 Summertime is typically associated with happiness and good times, but Fig's poem challenges that. The line 'the days drag onward / but I'm sleeping more than ever' creates the impression of languid, lazy days through the use of **alliteration** and a powerful verb. Try using **unexpected verbs** (e.g. 'drag onward' instead of 'get longer') and experiment with turning common assumptions (e.g. summer is happy, darkness is scary, rainy weather is 'bad' weather) on their head.

3 Fig uses the **repetition** of 'Because' in their poem to create **rhythm** and to slowly reveal more about the speaker and the opening question. Write a poem that asks a surprising question and then uses 'Because' or another repeating phrase or **mantra** to invite the reader to understand why the question was asked.





Extension activities



Extension

Judge Ali Cobby Eckermann invites us to access our own imagination and thoughts by first listening deeply to nature. How can we honour our surroundings and uncover more about ourselves?

1 Step outside. Breathe. Sit with a tree. Listen to its secrets. Meditate. Listen to the Ngarayamūrah Listening to Country meditation by Nicole Smede. What sound connects you to Country where you live?

2 Create an outdoor altar that honours place and decorate it with offerings from nature. It could be as simple as a tree stump covered with moss with fallen leaves and sticks as gifts.

3 Philip Bunting's poem reminds us about the cycles of nature. Can you find, observe and listen to a cycle near you? It might be the stars moving across the night sky, the birth and death of a flower in a park or the ebb and flow of the ocean tide. Write down your thoughts and feelings after listening deeply.

See our HSC English Resource for interviews and poem analysis with Ali Cobby Eckermann.



Extension

1 Choose a Commissioned Poem and listen to the audio. Does hearing the poem read aloud change the way you experience it? Play with reading your own poem in different tones. Record your poem in the way that you feel it should be read.

2 Imagine your poem as a song, dance, or short film. Does it translate to any of these mediums? Pick one and transform your poetry into another art form.

3 What is your inner forest and how can that translate to the outer world? What animals live inside you? Are they endangered? What special trees or colourful flowers live in your garden? Is there a waterhole or river that runs through it? Draw or write an impression of your inner forest.

POEM FOREST USA with Jacqueline Suskin

POEM FOREST began as seeds in many places with the hope of creating positive environmental action through poetry. After reading my story One Poem That Saved a Forest, Tamryn Bennett was inspired to create POEM FOREST with Red Room Poetry in 2021. After two years of successfully growing the POEM FOREST with schools across Australia, Tamryn came to California to join me for a writing retreat. Together, we walked the trails of old-growth redwoods and decided I should bring POEM FOREST to schools in the U.S. Beginning in Detroit, I piloted the project with urban classrooms and watched its roots take hold.

In 2024 POEM FOREST USA continues to bloom with InsideOut Literary Arts and the Kennedy Center's Turnaround Arts national education program. Schools in California, Connecticut, Michigan and Florida are currently preparing for poetry readings and tree-planting celebrations after following the POEM FOREST curriculum. The data collected during these sessions will inspire a national pilot program, bringing nature poetry into more classrooms across the country.

An anthology is in the works and excerpts from student poems appeared on the sides of shuttle buses for a *Moving Poems* initiative in Washington DC. *Moving Poems* is part of the Kennedy Center's REACH to Forests festival, which explores the symbiotic relationship between forests and the human world with two weeks of free programs, films, art installations, conversations, and more. Printed poems will be displayed inside Kennedy Center shuttles and will be seen by over 100,000 viewers.

The impact of POEM FOREST continues to inspire communities far and wide to use their voices, honor the earth, and plant more trees.

~ Jacqueline Suskin



Connecting to Country

ClickView Animations

Produced by Red Room Poetry in collaboration with ClickView, watch these animated video poems and complete the activities to connect with Country.



'Paleep' by Arika Walau

1 Watch Arika's animation. Personification gives inanimate objects human qualities: 'Landback! the orchids chant'. Listen to nature's voice. What does it say? Write a poem where something in nature (animal, river, glacier, habitat, tree) is given a voice. What message does it want to share?

2 What do trees provide (shelter, food, homes, medicines, cultural connections)? Choose an animal and write a poem about how you would feel if this animal's home was destroyed, or this species was lost. Why do you think you would feel this way?

>> See [page 33](#) for **Types of Forests**

3 Research someone who has made a positive impact on the environment. What impact did they make and how did they do it? Are there any groups you could join or local actions you could make?

>> See [page 51](#) for **Local Actions**



'Sun Downs and Seasons' by Kirli Saunders

1 Watch Kirli's animation. How do you speak with nature? Kirli writes the character of Mother Earth into all her stories and encourages us to greet each element of nature as we see it.

2 Take a walk in the bush or local park and choose a plant, animal or insect to strike up a conversation with.

- *What do they say?*
- *How do they sound?*
- *Write down the conversation and their messages.*

3 Etymology is the history of words and their origins. Research the history of the words 'book' and 'library'.

- *What are their connections to trees?*
- *Write a poem that explores the life cycle of a tree and its story.*

>> See [page 23](#) for Kirli's tips for **Writing Respectfully**



Pre-writing Prompts

Connecting with Nature

Observing, walking, listening to nature is not only good for us, it helps to create the most vivid writing. These activities will warm-up your creative writing skills, developing drafts and descriptions to compose your final *POEM FOREST* piece.

Listening

1 Step outside. Breathe. Sit with a tree. Listen to its secrets. Meditate.



Ngarayamūrah – Listening to Country meditation by Nicole Smede (5 min)

- *How did the meditation and being in nature make you feel?*
- *What secrets did the tree share with you?*

2 Listen to 'Two Fires Talking' by composer Christopher Sainsbury.

- *What images did the music make you imagine?*
- *What sounds connect you to Country where you live?*

3 Create your own musical response or 'To Country' composition with the chance to be mentored by Christopher Sainsbury and have your music performed by youth orchestras across Australia.

'Two Fires Talking' was commissioned by Artology for its 'To Country' program. It is about a little known practice in some parts of south-eastern Australia where clan groups would traditionally come together, and an Elder from each group would light a small fire about ten metres from each other. They sat in silence around the fires, and after some time the two would begin to talk of general things, and finally all present would be invited to join in on business and cultural sharing. It suggests respectful silence, protocol and sharing.

Reading and Watching

1 Read, watch and share nature poems and songs. They could be poems in this resource or ones you find elsewhere.

- *What is your favourite nature poem and why?*
- *What did it teach you about nature?*

Writing and Responding

1 Think about a place, tree, or animal in nature that is special to you.

- *How would you describe this to somebody who has never seen it?*
- *What makes it special? List at least three reasons.*

'Walk into a Forest and within five minutes your body and brain begin to change.'

~ Florence Williams from 'The Nature Fix'

Researching

1 Research an environmental activist or campaign.

- *What did you learn about the cause?*
- *How can your local actions have a positive environmental impact?*

>> **See Case Study: Varsha Yajman on page 52 for inspiration**

2 Research a threatened Australian species (flora, fauna or ecosystem).

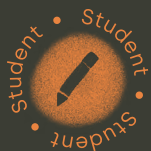
- *Why is this species important and what role does it play in the ecosystem?*
- *What could we do to help protect it?*

>> **See Endangered Ecological Communities on page 39 for inspiration**

Exploring

1 Have you heard of ecotherapy or Forest Bathing? Plan a visit to a forest, national park, local bush or Botanic Garden to research your poem. Make a checklist of what to pack — hat, water, snacks, sunscreen, first aid kit, something to write or draw with, a camera.

- *What did you observe or discover?*
- *How did being in nature make you feel?*



Pre-writing Prompts

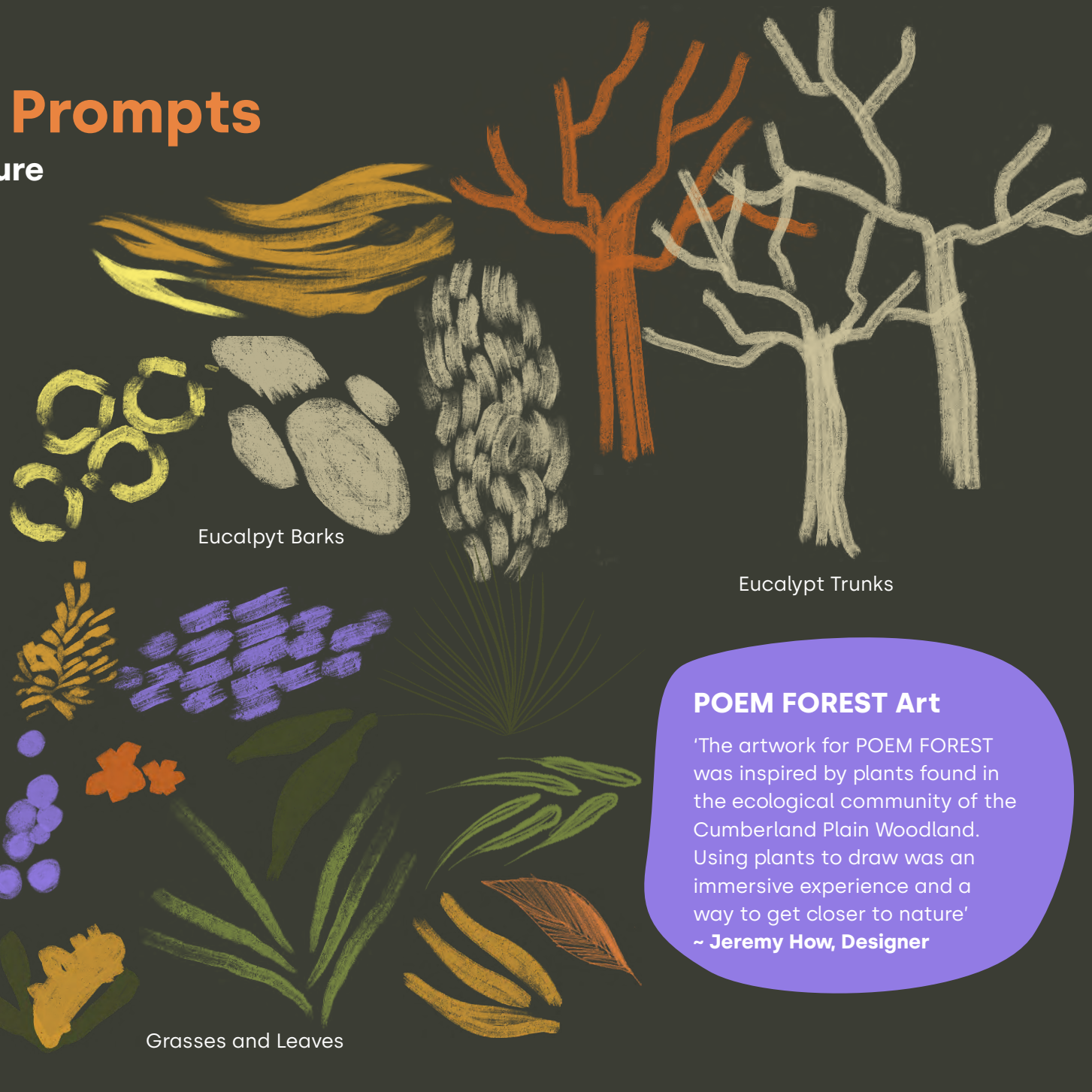
Connecting with Nature

Drawing

1 Explore your natural environment, look to the ground, look to the trees — can you see things that would make a good brush, pen or stamp? This activity explores using nature to draw plants. Dipped in Sumi ink, a leaf can make a great pen, or bark can create interesting marks or flowers can be a pattern stamp.

2 Don't have any Sumi ink? Try adding water to acrylic paint. There are lots of fun ways to create with our environment.

3 Would you like to save paper? Download the Pre-drawn Plants Pack and create your own collage.



POEM FOREST Art

'The artwork for POEM FOREST was inspired by plants found in the ecological community of the Cumberland Plain Woodland. Using plants to draw was an immersive experience and a way to get closer to nature'
~ **Jeremy How, Designer**



Pre-writing Prompts

Poetic Techniques

Collaborating

A group poem can be a great way to start writing poetry without the pressure of having to deliver a complete individual poem.

As a class, or in groups of 3-5, choose a special place in nature or a threatened species.

Invite each person to write one line about what makes this place or species so special. Use as many vivid and sensory descriptors and details as possible.

Arrange the lines in the best order and read aloud.

>> See page 46 for an A-Z of Lifeforms group poem activity

If you live or study on Dharawal and Wodi Wodi Country in the Wollongong LGA your group poem is also eligible for a prize.

Haiku

A haiku is a form of Japanese poetry consisting of three short lines that do not rhyme. Haiku is more than a type of poem with specific syllables (5, 7, 5); it is a deeper way of seeing world. Haiku create vivid imagery and often relate to nature. Read these examples from Matsuo Basho (1644-1694).

'An old silent pond...
A frog jumps into the pond,
splash! Silence again.'

'Autumn moonlight-
a worm digs silently
into the chestnut.'



Haiku Kuhi Stone Template

Kuhi are carvings of haiku on natural stone to make poetic monuments. Create your own haiku and write it on a stone to leave in nature.

Place

.....

.....

Memory

.....

.....

Fragrance
or scent

.....

.....

Extension

1 Craft an alphabet group poem. As a class or in small groups, choose a letter or life form each and write one line of poetry.

2 Arrange your group alphabet poem from A-Z or in the order that flows best.

3 Together, your lines of poetry make up a whole forest.





Pre-writing Prompts

Poetry Strategies

Think about a place, tree or animal in nature that is special to you. Describe it with a list of **vivid adjectives**.

Create a list of **sensory similes** that describe how nature smells, feels, tastes, sounds and looks like? (A simile compares two different things using 'like' or 'as'.)

- e.g. 'To see his face in stars that spiral like vines' or 'Birds sound as loud as chimes in the canopy'

Use a **metaphor** to describe nature. (A metaphor is a direct comparison where one thing is said to be another.)

- e.g. 'The ocean is a heartbeat'

What music or sounds can you hear in nature? Write a sentence in which you use **onomatopoeia** to describe what you hear.

- e.g. 'Squuuuaark screeches the cockatoo diving through the clouds'

Write a line that uses **alliteration** to describe nature.

- e.g. 'Knowing you can't stay below the whipping waves forever'

If you were a tree, animal or place what would you be?

Use **personification** to write three first-person 'I' sentences from the perspective of nature.

- e.g. 'Let my sap mingle with your tears'

Research the history of your special place, tree or animal.

Create a **myth** about its creation. You may use real facts or weave a fictional tale. You can use these ideas to write an ode inspired by nature.

Use different **tones and styles of voice** to evoke particular emotional responses in your reader. Experiment with writing in the voice of someone who is (a) awed or amazed (b) excited (c) angry.



Writing Respectfully



ClickView poet and proud Gunaḽ woman Kirli Saunders shares her tips for working respectfully with your local Aboriginal communities.

Connect with your Community

- Drawing on your local AECG, local Council and AIATSIS map, identify the Aboriginal Nation you live on. Re-write your Acknowledgement of Country after a bush walk/time to observe the land, plants, animals and insects, make sure you include some significant local landscapes!
- Connect with your local AECG, local Council and First Languages Australia to find out what language/dialects are spoken in your area.
- Drawing on your local AECG, local Council, Lands Council, First Languages Australia, Miromaa, find out if there are local language Custodians and teachers working in your community. Invite them in for a cup of tea and to be a part of your week to week poetry writing/bushwalking/gardening/art/science classes!
- Build a relationship, not an engagement for one off events. Our Community is busy, but love being involved in supporting the next generation.
- Don't forget to remunerate Elders and Custodians for their time, be mindful of accessibility, and shape your class times around your Elders availability.
- Books: Read *Somebody's Land* – Adam Goodes and Ellie Laing; *Bindi* – Kirli Saunders and Dub Leffler; *Cooee Mittigar* – Seymore and Watson; and *Guwayu For All Times*, Edt. Dr Jeanine Leanne.

Respectful Inclusion of First Nations Languages/Lands in your Writing

- You can acknowledge Country in your writing like this:

Poem Title

**Creator name e.g. Kirli Saunders
~ Written on Dharawal Lands**

- If you use language in your poem, you must ask for permission to include it and acknowledge the Elders or Custodians who taught you language. You can do this under the title of your poem with wording like this:

Poem Title

**Creator name e.g. Kirli Saunders
~ Written on Gundungurra Lands,
with Dharwal interpretations
taught to me by Aunty Velma Mulcahy**

- If you use language words, it's best to use footnotes rather than parentheses.
- Read and watch Kirli's poem '[Sun Downs and Seasons](#)' as a guide to Acknowledgement.



Avoid Clichés

A cliché is a phrase or simile that is very common and has lost any originality or impact having been used so many times. Clichés make for weak writing.

Complete the cliché activity then create your own specific image.

TIP It may help to read Maureen Applegate's poem 'Be Specific' before you begin.

Extension

1 Cut out each line and collage it together in a different way.

- How does this change the meaning of your poem?
- Does it make some lines more original?



Example cliché:

The waves sparkled like diamonds

Specific imagery: *The waves gnawed the shore with teeth like white claws*

Cliché: As blue as

Specific: As blue as

Cliché: As wet as

Specific: As wet as

Cliché: A sparkling blue

Specific: A sparkling blue

Write as many obvious adjectives as you can to describe nature and collect them into a long list.

Can you find any more interesting synonym for these words? Try not to use any obvious words or clichés in your poem.

Using Pre-writing Prompts

Once you have completed the prompts you can use the writing you have produced to help compose your poem.

- ☐ Read over your writing and circle or highlight any words, images, descriptions, senses or ideas that stand out to you.
- ☐ Circle or highlight any images or phrases that you feel are poetic.
- ☐ Circle or highlight any phrases or words, which help explain why nature is important to you.
- ☐ Circle any words or phrases that you feel might make a good title for your poem.
- ☐ Once you have done this copy out everything that is circled or highlighted onto a new sheet of paper. Use the material on your new sheet as the starting point or stimulus for your poem.



Editing Checklist

Congratulations on the first draft of your nature poem! Before submitting it to the POEM FOREST Prize, be sure to edit and refine your work.

Editing is a vital part of the writing process. Follow these tips to strengthen your poem and tick off the Editing Checklist as you check your work!

Peer Review Extension



1 Workshop your ideas and ask for feedback. Other readers will have fresh eyes as they approach your poem. Listen to their suggestions and revise your work. Use this [Peer Review](#) guide for the best results!

- ☐ **Read your poem aloud.** Do some words or phrases sound like they don't belong in your poem? Remove these and find alternative ways of expressing your ideas. How else could you say it?
- ☐ Find the **most important line or idea** in your poem. Do the surrounding lines support this? If not, cut or rewrite them.
- ☐ **Review any adverbs** you may have used in your piece. Instead of using these adverbs, opt instead for a more evocative verb to convey your idea (use 'sprint' or 'dash' instead of 'run quickly').
- ☐ If you use rhyme, **try a near rhyme** or moving your rhyming word to the middle of the line for more unexpected expression. Some of the best poems don't use rhyme at all. Forcing rhyme into a poem can detract from the message or tone.
- ☐ **Opening and closing lines** set the tone of the poem. In poetry, the tone is the emotion or attitude of the speaker or narrator. Does the tone remain consistent?
- ☐ Sometimes our **final lines can be susceptible to cliché**. What would happen if you cut out your final line or two? Have you discovered a more authentic poem ending?
- ☐ **How have you formatted your poem?** How have you arranged your lines and stanzas? Have you experimented with layout and punctuation? Review the design of your poem and make sure that you are happy with the layout.
- ☐ **Have you included any quotes or language words in your poem?** Check out [Kirli Saunder's tips for Writing Respectfully](#) and be sure to acknowledge your sources. Your poem must be an original work, but you can elaborate on inspiration and other sources in your reflection when you submit your poem.



Peer Review

Reflecting and Responding

Peer work encourages greater confidence and independent learning. By analysing one another's work, you gain a deeper understanding of the subject at hand.

Post-feedback Questions for Author

- Was the feedback useful? Why?
- How has it led you to change or revise your draft?

Poem Title:

Author:

Reviewer:

Tick when completed:

- ☐ I have read through the poem at least twice
- ☐ The poet has read their work aloud to me
- ☐ I have checked / corrected the poem for spelling
- ☐ I have checked / corrected the poem for grammar
- ☐ I have checked / corrected the poem for punctuation

- Comment on the title of the poem. Does it reflect the poem? How does it make you feel?
- What are the main ideas of the poem?
- What are the strengths of the poem? What did you like about it?
- Comment on a particular image in the poem. Explain your reaction to this image.
- If you could ask the poet one question about their poem, what would it be? Often questions help us see where things could be improved. Try to offer solutions, not just criticism.



Poem Template

To enter the POEM FOREST prize, compose an original poem about nature.

Your poem could be inspired by a place, plant, ecosystem or species that is special to you.

Your poem should be no more than 20 lines and should include some of the poetic techniques we explored in this resource.

Remember to review and edit your poem before entering it into the POEM FOREST prize via the [online entry form](#).

Extension

Write a reflection about what inspired your poem.



- *Where did your idea come from? What did you learn about poetry and nature? What did you learn about yourself?*

Share your reflection with us when you enter your poem.

Here's an example from our 2023 POEM FOREST entries:

'I live amongst the mangrove forest on an island in Bundjalung country. I like to play and hide in these trees and pretend I'm a mangrove tree. Mangroves are interesting trees because their roots shoot upwards and they collect dirt which become islands. We should look after Australia's mangrove forests because they are important places for all of us'

~ **Mason W, Year 5, Toogoolawa School (QLD)**

Student Name:

Student Year:

Poem Title:

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More Information

w: redroompoetry.org/projects/poem-forest

e: poemforest@redroompoetry.org

t: 02 9319 5090

Quality Criteria

This Quality Criteria has been established by Red Room Poetry and judging panels in consultation with NSW Public Schools.

The purpose of the Quality Criteria is to encourage students and teachers to explore, and experiment with a range of poetic techniques, as well as to ensure poems meet publication standards.

The Quality Criteria aims to enrich the creation of excellent poems and acts as an evaluative framework that enables judges to award poems based on artistic merit.

QUALITY CRITERIA	BELOW STANDARD	BENCHMARK	OUTSTANDING
PERSPECTIVE (AKA POV, WRITER'S VOICE)			
Degree to which the poet establishes: <ul style="list-style-type: none"> a distinctive voice, persona, or speaker clear or purposefully ambiguous tone extraordinary perception of nature insight into nature or the student's experience or world attitude towards their choice of subject matter 	<ul style="list-style-type: none"> The focus of the poem is difficult to identify and student seems unsure of their attitude towards nature Limited personal voice or clichéd perspective Limited description makes it difficult to recognise or identify nature in the poem Does not explore the significance of nature 	<ul style="list-style-type: none"> Intentional perspective (there is a focus on an idea, feeling or experience) Evidence of the poet's individual voice Provides insight into the natural world or their experience, even if unsophisticated Effective description or evocation of the natural world Intentional exploration of the significance of nature 	<ul style="list-style-type: none"> Controlled perspective Distinctive voice Perceptive insights about themselves or their natural world Sophisticated or highly effective description or evocation of nature Meaningful/affective insight into the significance of nature
COMPLEXITY OF THE POEM			
Degree to which the poet achieves: <p>a) Tension in words and ideas through:</p> <ul style="list-style-type: none"> an engaging challenge, or paradox effective ambiguity, multiple meanings suggestion of connotations beyond the literal defiance of predictable syntax use of balance, parallelism, contrast <p>b) Compression to create an intense poetic experience through:</p> <ul style="list-style-type: none"> avoiding unnecessary words economy of meaning distillation, condensation of ideas or feelings <p>c) Surprise through:</p> <ul style="list-style-type: none"> challenging assumptions providing a new way of looking at nature 	<ul style="list-style-type: none"> Demonstrates little understanding of the compressed nature of poetic expression Unnecessary and/or unimaginative details or vital detail is missing Poetic style is appropriate and effective 	<ul style="list-style-type: none"> Demonstrates understanding of the compressed nature of poetic expression Some tension A sense of wonder and discovery Writes with honesty and authenticity 	<ul style="list-style-type: none"> Achieves complexity and textual integrity through the use of tension, compression and surprise which creates an intense and challenging poetic experience Demonstrates an exceptional poetic style

Quality Criteria

QUALITY CRITERIA	BELOW STANDARD	BENCHMARK	OUTSTANDING
VOCABULARY, SOUND AND SYNTAX			
<p>The degree to which the poet effectively uses:</p> <ul style="list-style-type: none"> • fresh and effective vocabulary • unconventional syntax • syntax that generates the use of sound devices, which includes rhythm and may include alliteration, assonance, onomatopoeia, repetition, refrain and rhyme • awareness of the oral-aural connection 	<ul style="list-style-type: none"> • Mundane, unimaginative, imprecise and/or ineffective use of vocabulary • No poetic metre or rhythm evident • Clichéd and ineffective use of sound devices • Constrained by rhyme scheme 	<ul style="list-style-type: none"> • Imaginative, thoughtful, fresh use of vocabulary • Rhythm is mostly consistent with the sense of the poem • Syntax that generates sound qualities 	<ul style="list-style-type: none"> • Precise and/or evocative use of vocabulary • Rhythm complements and enhances the mood of the poem • Creative, evocative, musical syntax, which includes disharmony if appropriate
IMAGERY AND FIGURATIVE DEVICES			
<p>The degree to which the poet effectively:</p> <ul style="list-style-type: none"> • includes similes, metaphor, personification and other figurative language • selects and arranges concrete sensory detail • employs images to represent abstract feelings, ideas • suggests uncommon connections between images and figurative meaning • demonstrates 'metaphoric thought' through implied analogy 	<ul style="list-style-type: none"> • Simplistic and/or unimaginative figurative structures • Lack of imagery or a clichéd or confusing use of imagery • Abstract statements separate from concrete imagery 	<ul style="list-style-type: none"> • Figurative structures (which are mostly original) show the relationship of the concrete to the abstract • Clear images are used to portray ideas 	<ul style="list-style-type: none"> • Well crafted, effective and original figurative structures which may illustrate metaphoric or symbolic thought • Vivid, detailed images that create impact • May be experimental in use of imagery
SPATIAL DESIGN			
<p>The degree to which the poet demonstrates a visual concept through:</p> <ul style="list-style-type: none"> • the spatial arrangement of words, phrases, lines and white space • choices of spacing, enjambment, punctuation, caesura • indentation, upper/lower case letters, typography • stanzaic pattern • experimentation with punctuation 	<ul style="list-style-type: none"> • Unintentional or random design • Visual layout inconsistent with the content of the poem • Visual layout distracts the reader 	<ul style="list-style-type: none"> • Intentional design • Use of visual layout to assist the reader to access meaning in the poem 	<ul style="list-style-type: none"> • Careful and/or subtle design • Deliberate crafting of visual layout to enhance the reader's response to the poem



INSPIRATION AND ACTIVITIES

NATURE CASE STUDIES



Growing the POEM FOREST

In 2024, a new branch of the POEM FOREST is being planted on the traditional land of the Dharawal and Wodi Wodi people in Wollongong. This site will extend far and wide across Wollongong with trees planted as street trees, in local parks, Tiny Forests, natural areas, and backyards. A focus for planting will be on suburbs with low tree canopy cover to help cool the streets, purify the air and improve everyday life for people and animals. The trees planted in and around natural areas will help expand and grow natural areas, remove invasive weeds, and restore important biodiversity. They will support native wildlife and make creative and cultural connections for communities near and far.

Seedlings planted in the POEM FOREST include a wide range of native trees like Eucalypts, Paperbarks (*Melaluca*), rainforest trees like Palms, Lily Pillies and Flame Trees, as well as coastal-loving trees like Wild Quince (*Guioa semiglauc*) and Cheese Trees (*Glochidion ferdinandi*).

Nearly all the seedlings are being grown from seeds or cuttings by a team of specialist horticulturists at the Wollongong Botanic Garden Nursery. It takes a lot of time from collecting seeds to having a plant ready to go ... sometimes a few years or even longer!

Many of these trees are found locally, so are adapted to the site conditions and are already an integral part of the complex web of relationships between animals, insects, fungi, soil bacteria and other plants.

The Illawarra Flame Trees (*Brachychiton acerfolius*) are produced by the team collecting seed pods locally and carefully extracting the bright yellow seeds. The seeds are then sown before waiting for them to germinate. The team prick out the best quality seedlings and pot them up in trays. They are carefully nurtured in the nursery until they grow big enough to be moved out to 'toughen up' ready for planting. Depending on the time of year, this entire process can take around 9 to 12 months – so work has already begun!

Finally, they are ready to be planted in the POEM FOREST site or collected by you to plant at home!

The first POEM FOREST was planted on traditional land of the Dharawal people, on Mount Annan, in the heart of the Australian Botanic Garden. This site includes remnants of critically endangered Cumberland Plain Woodland and Western Sydney Dry Rainforest. A ceremony with local Elders and community helped to celebrate the first plantings and the birth of the POEM FOREST. Find out more [here](#).

Meet the POEM FOREST Trees

Learn more about the trees growing in the POEM FOREST including the Illawarra Flame Tree, Forest Red Gum and Cabbage Tree Palm.

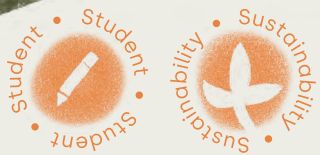
Endangered Ecological Communities

Explore the Perkins Dune System, Puckeys Estate Nature Reserve, Camp Gully Creek and the habitat loss that threatens them.

Extension

- 1 Saving seeds, which ones would you save and why?
- 2 Write a poem to the person who will plant it in the future.





Trees and Me

Earth is home to more than 8,700,000 species. This huge diversity of life-forms is astounding, but most have one thing in common — DNA (*deoxyribonucleic acid*).

DNA contains just four 'base' chemicals: adenine, guanine, cytosine and thymine. In a strand of DNA, the four bases appear in pairs, and these pairs can be arranged in an infinite number of combinations. They are the building blocks of life for a human being, a bacterium, a fern, an elephant, a starfish — and most other life-forms on earth.

All life-forms on this planet have evolved from a single ancestor that existed 4,000,000,000 years ago. This means plants are our family — we share DNA!

The truth of this deep connection is obvious: Time spent in nature lowers our blood-pressure and anxiety levels, boosts our immune system and improves our mood.

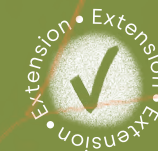
Students who study or live on Dharawal and Wodi Wodi Country in the Wollongong LGA are eligible for their own free seedling to plant at home. When you submit your poem via our [online form](#) you'll receive a voucher to collect your seedling from Wollongong Botanic Garden's Nursery.

Just like people, every plant is different. Diversity and individuality are the wonders of life on this planet. Australian plants have evolved in a harsh and dynamic landscape and their diversity has helped them adapt and survive. Today, the key threats to Australia's unique plant-life include invasive species, habitat destruction and climate change. We have no time to lose — we need to secure a sustainable future for plants and humanity by safeguarding biodiversity.

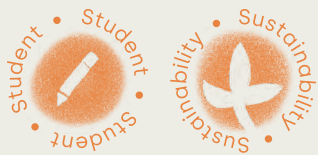
Working Together

The ability to adapt and change is a human strength. You can make a difference — no matter how small, every poem and action adds to the swelling tide of change. We invite you to take part in collaborative positive action via POEM FOREST, join bush regeneration days, take part in ClimateWatch and other Citizen Science projects, or plant a tree in your neighbourhood! Working together, we have the power to keep our planet in balance ... and ensure a healthy future for all life.

Extension



- 1 Students can plant their own 'Poem Tree' at school.
- 2 Connect with local First Nations people to learn what native trees are best suited to the local area. Research to find out what plants are needed for habitat. Explore what soil and water conditions are needed to help trees thrive.
- 3 Organise a tree planting event or ceremony, invite a local Elder and community. Write and perform nature poems at the event.
- 4 Arrange a student roster of caring for the tree, documenting its progress through observation, drawing and writing.



Types of Forests

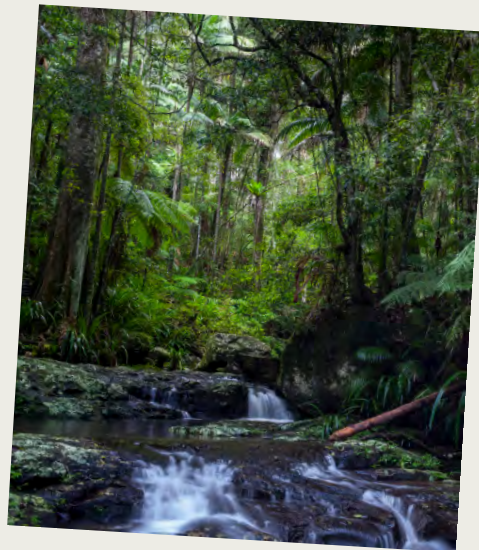
RAINFORESTS

Sixty million years ago, Australia was part of Gondwanaland — a huge landmass covered by lush vegetation. Many of Australia's rainforests are relics from this time; they are ancient ecosystems, home to a vast diversity of life-forms.

Globally, rainforests are a valuable resource for food, medicines, raw materials and cultivated plants. They play a vital role in maintaining the balance of oxygen and carbon in the atmosphere, helping regulate the climate.

Across Australia, rainforests are found in the tropics, and along the mountains and lowlands of the east coast. They range from the lush tropical forests of the north east, to dry vine thickets in semi-arid areas. Within these rainforests, a huge variety of plants and animals can be found, more than in any other vegetation type.

Since the late 1700s, much of Australia's rainforests have been cleared for agricultural, industrial and urban development. Many rainforest species are under threat of extinction.

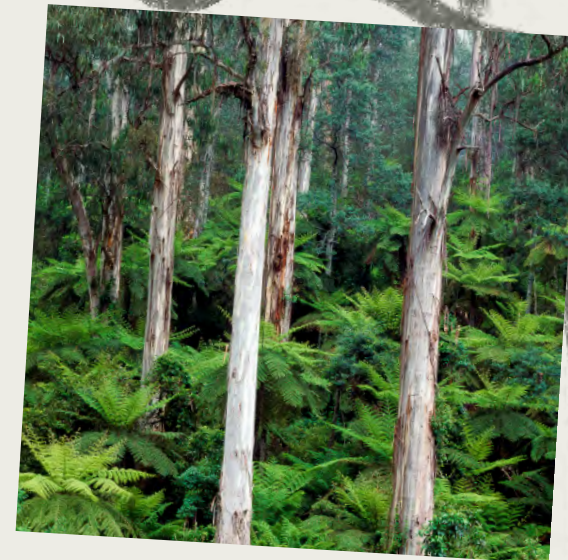


'A forest is a place where adventure awaits under the cool, dark canopy of trees and leaves that have shared secrets with the earth for eons.'

~ Mel Slarp, Education and Engagement Leader, The Australian Botanic Garden Mount Annan

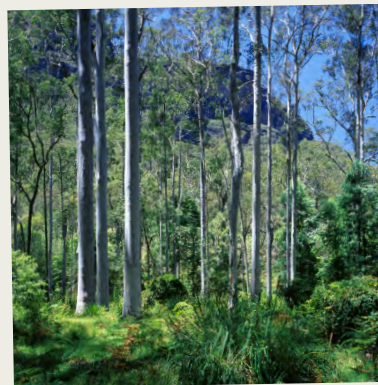
WET SCLEROPHYLL FORESTS

Wet sclerophyll forests are found along the eastern escarpment and in coastal regions and lowlands of New South Wales, Queensland, Victoria, and in the far south-west of Western Australia. Within these forests, eucalypts can grow to 70 metres tall, with broad-leaved shrubby or ferny understoreys. Occasionally, wildfire is part of these forests' cycle of renewal.



DRY SCLEROPHYLL FORESTS

Some of the most scenic parts of New South Wales and the far south-west of Western Australia are covered with dry sclerophyll forests with shrubby understoreys. Many of the understorey plants, which in New South Wales include Waratahs, grow very slowly. Some have associations with fungi or bacteria, allowing them to better absorb nutrients from the poor soils on which they grow.



Australian Forests
Images: Australian Botanic Garden



FORESTED WETLANDS

'Flooded forests' are dominated by trees that grow in swampy land along rivers and on floodplains across tropical, temperate and semi-arid areas. These wetlands support a rich diversity of wildlife; standing trees, such as River Red Gums, sometimes have hollows that provide habitats for many animal species.



SEMI-ARID WOODLANDS

Much of Australia's inland is arid or semi-arid, that is with less than 500 millimetres of annual rainfall. Semi-arid woodlands are dominated by trees including box eucalypts, she-oaks, wattles and cypress pines, while a variety of grasses and herbs make up the understorey. Many of the plant species in semi-arid woodlands are drought-resistant.



Australian Forests
Images: Australian Botanic Garden.



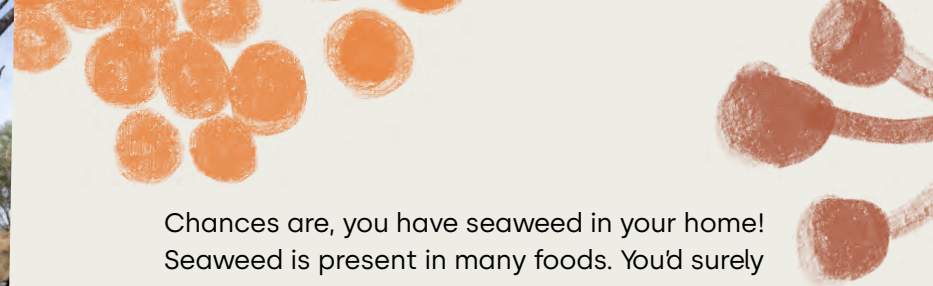
GRASSY WOODLANDS

Grassy woodlands are dominated by Box Eucalypts and other gums. The ground-cover consists of a range of distinctive grasses and herbs which give these woodlands their pastoral value. Grassy woodlands are widespread across southern and eastern Australia, including the wheat-belt and sheep-belt.

UNDERWATER FORESTS

Take a breath... and another. You can thank algae for one of those lungfuls! In the deep past, algae paved the way for animals by transforming Earth's toxic atmosphere to sweet, life-sustaining air. To this day, algae produces half the world's oxygen.


From the high-tide mark to the bottom of the deep blue sea, the sunlit shallows hold a world of diversity that many of us never see. To depths of 200 metres, marine forests of red, green and brown seaweeds — macroalgae — can be found growing, and countless microalgae species drift on the currents.



Chances are, you have seaweed in your home! Seaweed is present in many foods. You'd surely recognise it in sushi, but may not realise that molecules extracted from seaweed are used in food products such as chocolate milk, chewing gum, jams and sausages. In the bathroom, you may find components of seaweed in facial masks, body creams, shampoos, and even toothpaste! Your garden loves a healthy dose of seaweed to add nutrients to the soil. In the medical field, seaweed has become a bit of a superstar. Algin is a seaweed extract that makes a fantastic binder and used in creating molds — heavily used in both pharmaceutical and dental industries. Science advances would not have come as far without the help of humble agar, which is derived from red algae.

We all depend on algae. They produce oxygen and store carbon, playing a vital role in stabilising Earth's climate. But the range and richness of algae is under threat ... many Australian species have moved south as the oceans warm, and some cold-water species are on the brink of extinction.

Climate change is a complex challenge, but algae may hold one answer: Ocean Afforestation. This is a process where seaweed is cultivated in large underwater forests. The seaweed absorbs carbon dioxide from the atmosphere, which is then separated and stored after harvesting.





Meet the POEM FOREST Trees

The main trees chosen for the POEM FOREST with Wollongong City Council:

ILLAWARRA FLAME TREE

This iconic tree found in coastal rainforests from central New South Wales to far north Queensland growing up to 35 metres is best known for its bright red bell-shaped flowers that burst with a shock of colour en-masse in summer. They are so bright, you can clearly see them from afar on the Illawarra escarpment when they are in flower! They are one of the few deciduous trees in the region, dropping some or sometimes all of their leaves in spring before they flower. This conserves moisture which in turn allows the tree to put its energy into flowering. More flowers provide a greater opportunity for pollination and ultimately, more seeds are set.

The leaves are often eaten by possums and several caterpillars of some of our native butterflies such as the Pencilled Blue (*Candalides absimilis*), Common Aeroplane (*Phaedyra shepherdii*) and Tailed Emperor (*Polyura sempronius*) butterflies. Quite a few of our small native insectivorous birds such as the Flame Robin (*Petroica phoenicea*) and the Brown Gerygone (*Gerygone mouki*), feast on the caterpillars and other insects drawn to this tree. Birds such as Cockatoos and Currawong eat the seeds, using their strong bills to prise open the tough large black boat-shaped seed pods stuffed with hairy seeds. Be careful! These hairs are an irritant, so gloves and a mask are worn when handling these seeds. The flowers are a food source for nectar gathering animals such as bees and native birds.

The inner bark has been used for making string, fishing nets and traps and the tree has even had songs written about it (such as 'Flame Trees' by Cold Chisel) and has featured on an Australian Postage stamp.



Images: Wollongong Botanic Garden

ILLAWARRA PLUM PINE

Podocarpus elatus is a common rainforest tree endemic to the east coast of Australia, generally growing up to around 12 metres high but can reach up to 30 metres.

Their edible fruit is made up of two parts: a hard inedible seed; and the fleshy purple stem, which can be eaten raw or used to make jam and other preserves, sauces and marinades, cakes and fruit compotes. The fruit is considered a powerhouse of antioxidants, with studies finding them to contain seven times more antioxidants than blueberries. In addition, the fruit contains lots of sticky sugars called *Mucopolysaccharides*, which are good for gut health.

Native birds like the Pied Currawong (*Strepera graculina*), Green Catbird (*Ailuroedus crassirostris*) and Satin Bowerbird (*Ptilonorhynchus violaceus*) also feed on their fruit and then disperse the seeds in their droppings. The flowers attract a range of butterflies and other insects.



CABBAGE TREE PALM

This slow growing, but long-living palm can reach a height of 30 metres and has fan-like leaves stretching 3-4 metres long. You'll find it in the coastal areas of New South Wales, Queensland and Victoria, growing in wet sclerophyll forest, often in swampy areas along stream banks in the understorey of rainforest and eucalypt forests. This tough plant can handle wind, drought and fire.

The large and fibrous leaves can be used for thatching, making hats, baskets, bags and nets. The fruit are eaten by birds such as Topknot Pigeons (*Lopholaimus antarcticus*) and Pied Currawongs (*Strepera graculina*). The tree also plays an important role in conservation for the vulnerable Gould's Petrel (*Pterodroma leucoptera*). This small nocturnal seabird native to Australia nests on Cabbage Tree Island in the Northern Rivers region of NSW in the scree of rocks that are covered by the interlaced leaves of the Cabbage Tree Palm. These leaves cover the entrances to most of the nest sites, protecting them from the weather and predators.



Images: Wollongong Botanic Garden



LILY PILLY

This tall rainforest tree grows up to 20 metres and has glossy green leaves, which start off red in autumn as new growth. They have masses of fluffy cream flowers in summer and their fruit appear in autumn as white, pink, or purple berries. The fruit has high levels of vitamins, antioxidants, minerals, and essential fatty acids.

One of the most widespread trees in the Illawarra region, growing across the area in almost all plant communities except wetlands. They are also widespread on the East Coast of Australia from the coast to ranges, often along watercourses.

The flowers attract nectar feeding birds, flying foxes, ring tailed possums, bees and butterflies.



CHEESE TREE

Glochidion ferdinandi is an elegant tree with white, pinkish fruit that is shaped like small portions of cheese, they are a gentle feature over summer. As the fruit ripens, they split open to reveal bright red seeds.

These trees attract birds looking for food, as well as shelter because they have dense foliage and branches. The fruit and seeds are often eaten and spread by birds including the Olive-backed Oriole (*Oriolus sagittatus*), Lewin's Honeyeater (*Meliphaga lewinii*), and various pigeons, doves and parrots.

You'll find these widespread in coastal districts across New South Wales, Queensland, Western Australia and the Northern Territory.

BLACKBUTT

Eucalyptus pilularis is a massive forest tree, reaching heights of up to 50 metres. The lower bark is rough and 'stringy' for up to half its height. The smooth upper bark varies throughout the year from white to pale cream or grey.

Being such a large tree, they provide great habitat for many species of fauna including Koalas (*Phascolarctos cinereus*) who eat the leaves, and the ridiculously cute Greater Gliders (*Petauroides volans*) who prefer to den in the hollows of this tree. They also provide habitat hollows when branches drop, leaving small holes in the trunk that become prime nesting sites for possums and birds.

Hollows can take up to 100 years or more to form and are not common. Keep a look out and you might find birds such as parrots tending to their nest within.

You also might see birds like Magpies, Cockatoos, Rainbow Lorikeets, Currawongs and Crows nesting high in its branches. Grey-headed Flying Foxes and lots of bird and insect species feed on the nectar of the flowers. There is also the usual band of insects and arachnids that make homes, and a living, off big trees like these.

Eucalyptus pilularis are often found from dunes in coastal areas, across the coastal plain and to the upper escarpment in New South Wales and Queensland. They like deep, fertile soil and high rainfall.



Images: Wollongong Botanic Garden

FOREST RED GUM

Eucalyptus tereticornis is a magnificent tree growing up to 30 metres tall with a wide stocky trunk and often found in grassy woodland, and wet or dry sclerophyll forest, along the east coast of mainland Australia.

The tree is usually branch-free in the bottom half, with the bark shedding in long ribbons and sheets to expose a smooth whitish grey trunk with patches of grey, pink, and even blue.

This is an important habitat tree for Koalas and many birds. Sugar Gliders (*Petaurus breviceps*) and flying foxes enjoy feeding on its sweet nectar.

NARROW-LEAVED PAPERBARK

Melaleuca linariifolia is a shrub or small tree growing up to six metres high with thin brown papery bark. In summer the flowers all open together so the whole tree is topped with dense white blossoms creating the appearance of snow-covered branches. The flowers attract many nectar-feeding birds, butterflies, and other insects. Birds also forage on the seeds.

This tree grows in heath and dry sclerophyll forest in moist or swampy ground along the coast and adjacent ranges of New South Wales and Queensland.





WILD QUINCE

Guioa semiglauc is an attractive small tree growing up to 15 metres, with white flowers in the forks of the leaves attracting a range of insects when in flower. The dense canopy provides shelter and nesting sites for birds, and their fruit are eaten by birds including the Australian King-parrot (*Alisterus scapularis*), Eastern Rosella (*Platycercus eximius*), Australasian Figbird (*Sphecotheres vieilloti*), Lewin's Honeyeater (*Meliphaga lewinii*), Olive-backed Oriole (*Oriolus sagittatus*), Pied Currawong (*Strepera graculina*), and Varied Triller (*Lalage leucomela*).

Guioa semiglauc like deeper soils, including deep sands in coastal areas and is usually found growing in warm rainforest from Queensland to the New South Wales coast and ranges, often in regrowth areas.



1 Watch 'Mosaic of Secrets' by Dakota Feirer written for Wollongong Botanic Garden's 50th Anniversary in 2021

2 The power of plants - staff at Wollongong Botanic Garden

3 Superfoods of the Rainforest: Illawarra Plum Pine



Seeds of the Illawarra Plum Pine

SNOW-WOOD

Pararchidendron pruinsum is a beautiful tree growing up to 15 metres tall in subtropical, warm-temperate, and riverine forest in New South Wales and Queensland.

They produce stunning displays of fragrant fluffy flowers that age in colour from white to a soft golden orange, followed by orange twisted fruit pods that dangle from the branches. The white-coloured phase of flowering attracts bees, bee-flies, and butterflies, including the Tailed Emperor butterfly (*Polyura pyrrhu*), which breed on their branches.



Botanic Art by Helen Moon, Friend of Wollongong Botanic Garden



Endangered Ecological Communities



Wollongong is the traditional land of the Dharawal and Wodi Wodi people, who have a deep affinity and understanding of the natural landscape. Archaeological evidence indicates that Aboriginal people have been resident in the Illawarra area for at

least 20,000 years prior to colonisation.

A number of important ecological communities (an assemblage of species, including plants and animals, which occupy a particular area) can be found here. They are generally recognised by particular plant species (tree, shrub, ground cover) that is found in the area, in combination with other factors like soil type, altitude, topography or location.

An Endangered Ecological Community (EEC) is an ecological community identified as facing a high risk of extinction. They are often threatened by invasive weeds, clearing of native vegetation, habitat degradation, pest animals, disease, climate change, and high frequency fires.

Australia has over 1,800 threatened species and one of the highest rates of extinction in the world. Healthy habitats with high biodiversity play a critical role in protecting native plants and animals at risk of extinction.

PURRUNGULLY WOODLAND, HORSLEY COASTAL PLAIN: ILLAWARRA LOWLANDS GRASSY WOODLAND

Illawarra Lowlands Grassy Woodland occurs on gently sloping to undulating land lower than around 200 metres from the escarpment foothills to the coastal plain.

Since the arrival of Europeans, large areas of Illawarra Lowlands Grassy Woodland have been impacted by clearing, farming, grazing, invasion of weeds, logging, dumping of rubbish and damage from recreational activities like bush bike tracks. Most of what remains is in small and fragmented areas and their long-term viability is threatened. Sadly, this means the Illawarra Lowlands Grassy Woodland in the Sydney Basin Bioregion is likely to become extinct in nature unless something is done to stop further damage.

One species recently found growing in Purrungully Woodland is *Pimelea curviflora* var. *curviflora* – a threatened species at risk of extinction in NSW. An illegal bike track had been destructively installed right through this small community of plants. Staff from Wollongong City Council and the Department of Planning and Environment went on a rescue mission to take cuttings from the plants and salvage a few whole plants from the middle of the track. A small collection of rooted plants is now safely housed at Wollongong Botanic Garden for ongoing propagation and transplanting to help the future survival of this species in the Wollongong area.

Common tree species of the Illawarra Lowlands Grassy Woodland are *Eucalyptus tereticornis*, *Eucalyptus eugenioides*, *Eucalyptus longifolia*, *Eucalyptus bosistoana* and *Melaleuca decora*. Many of these species will be planted in the POEM FOREST.



**PERKINS DUNE SYSTEM COASTAL PLAIN:
BANGALAY SAND FOREST + LITTORAL RAINFOREST
AND COASTAL VINE THICKETS OF EASTERN AUSTRALIA**

The Perkins Dunes covers 254 hectares, extending along a long narrow peninsula across Port Kembla, Primbee and Windang Beach in the south-east of Wollongong. Dune environments like this are naturally dynamic, with winds, salt laden air and spray, tides and storms continually sculpting and changing the foredunes.

This area contains two types of endangered ecological communities: 'Bangalay Sand Forest', a shrubby dry sclerophyll forest with an open tree canopy between 5-20 metres tall; as well as 'Littoral Rainforest' which is located close to the ocean (usually within two kilometres) with lots of rainforest trees making up most of the canopy, along with some sclerophyll species and vines. Littoral Rainforest is very rare and makes up less than 1% of the total area of rainforest in NSW.



Two threatened plant species, the endangered White-flowered Wax Plant (*Cynanchum elegans*) and vulnerable Bearded Bush Pea (*Pultenaea aristata*), have been recorded at Perkins Dunes.

Image: Jaime Plaza van Roon



Image: Wollongong City Council

The landscape and different vegetation communities here provide habitat, nectar, pollen and forage areas to support hundreds of animals, including birds, mammals and insect species. Beach nesting birds such as the Little Tern (*Sternula albifrons*) and Pied Oystercatcher (*Haematopus longirostris*), both listed as endangered are seen here, along with the vulnerable Grey-headed Flying Fox (*Pteropus poliocephalus*), Swamp Wallabies (*Wallabia bicolor*), Red Wattlebirds (*Anthochaera carunculata*), Rainbow Lorikeets (*Trichoglossus haematodus*), Scarlet honeyeaters (*Myzomela sanguinolenta*), and Yellow-faced honeyeaters (*Lichenostomus chrysops*). Fallen logs, branches, groundcovers, and leaf litter provide niches for reptiles and invertebrates like crabs and beach worms. The endangered Green and Golden Bell Frog (*Litoria aurea*) has been recorded here along with Striped Marsh Frogs (*Limnodynastes peronii*), Peron's Tree Frog (*Littoria peronii*), Bleating Tree Frog (*Litoria dentata*), and the Eastern Dwarf Tree Frog (*Littoria fallax*).

Common tree species of the Bangalay Sand Forest and Littoral Rainforest areas which will also be planted for POEM FOREST include Coast Banksia (*Banksia integrifolia* subsp. *integrifolia*), Blackbutt (*Eucalyptus pilularis*), Lilly Pilly (*Acmena smithii*), Swamp Oak (*Casuarina glauca*), Guioa (*Guioa semiglauc*), Illawarra Plum Pine (*Podocarpus elatus*), and Native Celtis (*Celtis paniculata*).



Images: Wollongong Botanic Garden

PUCKEYS ESTATE NATURE RESERVE, FAIRY MEADOW COASTAL PLAIN: SWAMP OAK FLOODPLAIN FOREST + SWAMP SCLEROPHYLL FOREST ON COASTAL FLOODPLAINS

Puckey's Estate Nature Reserve contains important remnants of Wollongong's natural and cultural heritage. The site can be entered via a pedestrian boardwalk located adjacent to the Fairy Creek Bridge on Squires Way, North Wollongong, with a 1.5 kilometre natural walking track extending through to Elliotts Road in Fairy Meadow.

This coastal habitat contains lagoons, front line dune systems and littoral rainforest vegetation communities that provide important habitat to possums, reptiles, frogs, flying fox, fish and more than 130 species of birds, including Australia's largest owl, the Powerful Owl (*Ninox strenua*).

This Swamp Oak Floodplain Forest is a rare endangered ecological community. It is dominated by the Swamp Oak (*Casuarina glauca*) and Swamp Paperbark (*Melaleuca ericifolia*). The community has a sparse cover of shrubs, and a continuous groundcover of forbs, sedges, grasses and leaf litter. Frequently, vines occur in the understorey, including the Common Silkpod (*Parsonsia straminea*) and the Snake Vine (*Stephania japonica* var. *discolour*).

The areas of Coastal Saltmarsh found here are another endangered ecological community containing sedges, rushes, reeds, grasses, succulent herbs and low shrubs that can tolerate high soil salinity and occasional inundation with salt water. Historically these areas have been undervalued and considered by many to be boggy swamps and wastelands, so have largely been destroyed by humans. They do however provide important ecological roles by providing habitat and food for animals, including fish, crabs, migratory birds and snakes. These act as a buffer and filter of nutrients; reducing erosion and maintaining water quality. They also act as a carbon sink – storing large quantities of carbon both in plants and in the sediment below them.

This area is an annex site to Wollongong Botanic Garden due to its extremely rare coastal dune system, containing the endangered ecological communities. It is also under a BioBanking agreement designed to help manage the threats to the bushland and habitat so that its important ecological values are conserved into the future.





Image: Jaime Plaza van Roon

WOLLONGONG BOTANIC GARDEN RAINFOREST COLLECTION, KEIRAVILLE ILLAWARRA ESCARPMENT SUB TROPICAL RAINFOREST

Whilst not a naturally occurring endangered ecological community, this rainforest is one of the largest botanic garden rainforest collections in Australia and represents a number of locally endangered ecological communities such as the Illawarra Escarpment Sub Tropical Rainforest.

The rainforest collection follows a natural creek line, which provides a moist, rich environment. Tall canopy trees create a shady environment, and filter light for shrubs, ferns, epiphytes (plants that grow on other plants) and ground covers at lower levels.

Some of the species you'll find here are listed as endangered, including the Illawarra Socketwood (*Daphnandra johnsonii*) and Illawarra Zieria (*Zieria granulata*), as well as plants like the iconic Australian Red Cedar (*Toona ciliata*), which were devastated by logging or land clearing in the early 1800s. You'll also find many of the POEM FOREST trees such as the Illawarra Flame Tree (*Brachychiton acerifolius*), Cabbage Tree Palm (*Livistona australis*), Illawarra Plum Pine (*Podocarpus elatus*), Cheese Tree (*Glochidion ferdinandi*), Lilly Pilly (*Acmena smithii*), and Wild Quince (*Guioa semiglauc*).

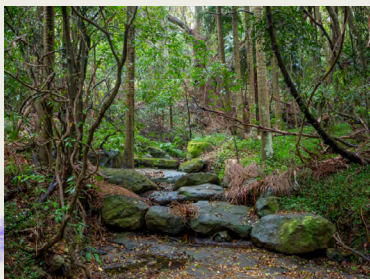


Image: Jaime Plaza van Roon

This rainforest provides important habitats and food for a wide range of animals and insects. Powerful Owls (*Ninox strenua*), listed as vulnerable in NSW and the largest owl in Australasia (reaching up to 60

centimetres in length with a wingspan of 140 centimetres), love the dense vegetation provided by this rainforest and the prey this habitat attracts. Loss of habitat from clearing, along with reduced food availability, secondary poisoning from rodenticides, large glass windows and predation by foxes, dogs and cats are all threats to these owls. You'll also see plenty of Eastern Water Dragons (*Intellagama lesueurii*) when walking in and around this rainforest.



Illawarra Socketwood (*Daphnandra johnsonii*) by
Helen Moon, Friend of Wollongong Botanic Garden



Learn more about
Endangered Ecological
Communities

Find an Endangered
Ecological Community
near you

CAMP GULLY CREEK, HELENSBURGH SOUTHERN SYDNEY SHELTERED FOREST ON TRANSITIONAL SANDSTONE SOILS

There you'll find key species such as the Sydney Red Gum (*Angophora costata*) (pictured), Sydney Peppermint (*Eucalyptus piperita*) and Blackbutt (*Eucalyptus pilularis*), providing canopy above a groundcover of ferns, grasses, rushes and forbs. There is also a remnant Melaleuca Forest to the north, transitioning to riparian vegetation along the creekline.

Glossy Black Cockatoos (a vulnerable species in NSW) are regularly seen in Camp Creek, feeding on endangered She-oaks (*Allocasuarina littoralis*) found here. These cockatoos feed almost exclusively on She-oaks and Casuarina species, and occasionally feed on insect larvae. Tree hollows from these mature forests are essential for nesting and rearing their young.

Bush regenerators are working to regenerate this area and reduce the damage and habitat loss caused by development, digging of soil for informal bike tracks, illegal firewood collecting, dumping of rubbish, spread of weeds and the impact of deer.



Image: Wollongong City Council

Case Studies

Tiny Forests, Big Impact

Can you fit a Tiny Forest in your hand? Unfortunately not, but maybe in your backyard or local park!

A Tiny Forest contains everything a real forest does, only in a small footprint, roughly the size of half a tennis court (minimum ten metres by ten metres in size), so they can be grown where natural forests have long disappeared. Tiny Forests have been popping up around Wollongong to help bring all the benefits of the forests to the streets and towns where people live. They are like little power houses cooling the air, capturing and storing carbon, creating habitat for living things above and below ground, as well as creating a sense of place for people.

So, how do they work? Inspired by the work of Japanese Botanist, Akira Miyawaki, they are small spaces filled with a diverse mix of native plants normally found in the wild and suited to local growing conditions. The plants are specially selected to work together and replicate the layers of a forest (e.g. a bottom layer, understorey, canopy and emergent

layer) and planted very close together (three to five plants per square metre).

The emergent layer gets most of the sunlight. Trees like the White-Topped Box (*Eucalyptus quadrangulata*) can use this sunlight by photosynthesis to make sugars which it can supply to the mycorrhizal network (an underground network of fungi that connects plant roots to share nutrients with other plants in the community). This relationship is a symbiotic one, where in return for these sugars the mycorrhizal fungi will supply nutrients from the soil, greatly expanding the nutrients available to the roots of these forest giants. The emergent trees are also the first flags for flying pollinators, so trees are selected that flower at different times encourages a greater range of pollinators to our forests.

The next layer is the canopy layer, it's like a big umbrella that stops smaller things from being sunburnt. It also provides homes for so many of our tree dwelling natives such as gliders, possums, owls and microbats.



Images: Wollongong City Council

Selecting trees that fruit and flower at different times of the year means a constant source of food, be it from eating the fruits themselves, drinking the nectar, or from animals eating insects that are attracted to the fruits or nectar. The Sassafras (*Doryphora sassafras*) for example is pollinated by the mosquito and the crane fly, two tasty insects enjoyed by microbats. Another role that the canopy plays is to produce large volumes of humus through leaf and fruit drop. One plant selected is Lilly Pilly (*Acmena smithii*) which can be annoying when grown over your car park space, as the fruit drops, but when grown in a forest, it is a large contributor to the biomass from the large amount of fruit it produces.

Next we have the understorey, with plants that help to hold onto the moisture and heat, creating a little humid hothouse for our seedlings. They are often much more shallow-rooted and some of them have nitrogen fixing nodules such as the Wattles (Acacias) to share on that mycorrhizal network. The shrub layer provides habitat to small birds and helps hold the soil, while the groundcover layer helps reduce moisture loss by trapping leaf litter. This provides cover for microbes to help the composting process to humus.

The final, and arguably the most important layer is the soil. In creating each Tiny Forest we need to work hard to bring nutrients into the soil to help the plants thrive and grow

quickly. We use nutrient rich compost and transport important microorganisms like fungi and bacteria from nearby established forests through a process called inoculation. Eventually the plants will take over and improve the soil naturally as part of a healthy forest ecosystem.

Planting days see school kids, volunteers and the community coming together with Council staff to make each Tiny Forest a reality. It is a fantastic community feel, and selected plants have height and circumference measurements taken, along with photos, and are monitored regularly to see how quickly the forest is growing.

The Tiny Forests in Wollongong don't just grow tree canopy cover in the streets, they have become a living educational tool and a community builder.



Image: Wollongong City Council





A-Z of Life Forms and Their Roles in the Forest

Forests are tree-dominated landscapes, with trees usually single-stemmed, taller than two metres, and providing crown cover of 20% or more. Forests are an important ecosystem of Australia, covering 17% of our land area. They include native forests and plantations, as well as woodlands. Forests, like all balanced ecosystems, provide an efficient flow of materials and energy. Plants, animals and microorganisms interact and function together with abiotic (non-living) factors to cycle energy through the system and maintain a delicate balance.

ALGAE

Algae are a very diverse group of plant species. You might expect to find them in oceans, lakes and rivers, but they are also found in thermal springs, snow and soil, and even inside other plants, fungi and animals!



ARACHNIDS

Arachnids are arthropods that include spiders, scorpions, mites and ticks. In the forest, spiders play an important role as a predator species that keeps the invertebrate population in check. They are also a food source themselves, for some invertebrates and birds. Spiders are an all-rounder in the forest – they inhabit all layers, from the leaf litter to the canopy!

BACTERIA

Rhizobium species are bacteria that form nodules on the roots of legumes – including beans, peas and lentils. The bacteria absorb nitrogen from the air and convert it to ammonia, a usable form of nitrogen essential for the plant's growth. When the plant dies, the nitrogen in its root nodules is released into the soil, providing rich nutrients for other plants.

BIRDS

One of Australia's well known birds is the Superb Lyrebird (*Menura novaehollandiae*), with many living in the escarpment of the Illawarra and other moist forests along south-eastern Australia's mainland and southern Tasmania.

They are the natural composters of the forest, spending their time on the ground foraging in the understorey of forests scratching around for food like insects, spiders, worms and, occasionally, seeds underneath the leaf litter. This means the leaf litter is being turned over, helping to create a nutrient rich compost that will feed the forest.





BRYOPHYTES

Mosses, hornworts and liverworts – Bryophytes – were the first plants to colonise the land, around 500 million years ago. They are small and have no roots, no flowers

or seeds, but these soft little plants have true grit! Small but mighty, they create microclimates that are the foundations for the world's forests. Bryophytes are vital to the health of many ecosystems. They are pioneers – often the first plants to appear in new areas, between paving cracks or in other barren places after disturbance. Growing in tightly packed communities, they form protective crusts for soil, and prevent erosion. They capture nutrients and water from the air, creating rich habitats for tiny creatures and other plants. They are also a nutritious food for herbivores, so some have adapted to contain chemicals within their cells that discourage animals from eating them!



EPIPHYTES

Epiphytes are plants that live on other plants! Instead of sinking their roots into the ground, they cling to the branches or trunks of trees

– often high up in the canopy. They collect fallen leaves and other debris as nutrients to help them grow. Some have a whorl of leaves that form a cup-shape in their centre, where rainwater is stored. The reservoirs can be a valuable source of water, or even a home, to many animals including frogs.

FERNS

Ferns are a plant group that demonstrates amazing diversity. Around 450 fern species can be found thriving in a range of Australian habitats; from deserts to rainforests, swamps to dry woodlands. Ferns can cope with very poor soil, and some even grow clinging to tree trunks or cliffs.

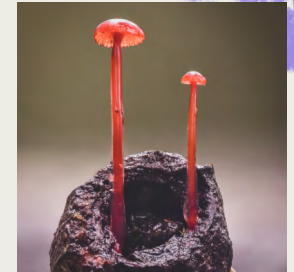
Ferns aren't just beautiful, they provide many other benefits. The Birds Nest Fern (*Asplenium australasicum*) has been shown to help our skin and mental health, but they also purify the air by absorbing harmful gases like formaldehyde and nicotine which cause many types of illnesses. Like from the leaves of trees, the transpiration (the loss of water vapour) from their fronds also helps to cool the air. When combined with the shade of other big forest trees, you'll notice how much cooler it is in the forest compared with standing in the sun on grass or concrete!



FUNGI

Fungi plays an important role as a composteer, communicator and caretaker of the forest. Many plants form relationships with mycorrhizae – fungi that live inside and outside their roots. The fungus helps the plant to extract water and nutrients from the soil, while the plant supplies the fungus with a constant source of food (carbohydrates from photosynthesis). The fungi can also boost the plant's chemical defences against pests and diseases when needed.

Fungi is also a vital part of a forest's communication system. If a plant is attacked by insects or disease, alarm signals travel through a network of fungi in the soil. Nearby plants respond by producing toxins to protect themselves. After fire, fungal threads called *Pyronema omphalodes* appear which help to hold the soil and ash together to help the forest recover.





GRASSES

Grasslands provide shelter and food for large local animals including Wallabies. In grasslands, different species thrive and decline over the course of a year. Windmill

grasses are efficient at capturing carbon through photosynthesis, and grow best in midsummer. Other grasses such as Kangaroo Grass (*Themeda triandra*) flourish through the cooler months. Dense clumps of Kangaroo Grass retain soil moisture, creating habitat for tiny soil-dwelling creatures. Swamp Foxtail Grass (*Cenchrus purpurascens*) grows in moist conditions and boggy areas, mostly along the coast and provides habitat and food for small creatures and birds.

The Dharawal language name for kangaroo grass is Durawi. First Nations people gathered the grains to grind into flour for flat-bread. An ancient grinding stone found at Cuddie Springs in New South Wales dates from 28,000 BCE, providing evidence that Australia's First Nations peoples were processing seeds to make flour and bread at least 12,000 years before the Egyptians.

Australia's grasses are adapted to survive unpredictable rainfall and soils with low fertility, so they are the best choice in

restoring damaged landscapes. The roots help bind soil after disturbances such as earthworks, preventing erosion.

Grasses also have more than one method of reproduction: Thousands of small, light pollen grains are produced on each grass flower. The pollen is carried by the wind to other plants – a pollination method resulting in large numbers of seeds. Tillers – side-shoots – sprout from the base, creating a dense clump of stems that are clones of the parent plant.

GROUND COVER / CLIMBER

These plants scramble and twine, covering the ground and climbing stumps and trees, reaching toward the sunlight as it filters through the forest's canopy. Purple Coral Pea (*Hardenbergia violacea*) produces seeds with elaiosomes – small nutrient-rich outgrowths. Ants are attracted to these, and collect the fallen seeds. The seeds lie dormant in the ant-nest until a bushfire's heat cracks open their hard seed coats, allowing germination after rain. Purple Fan Flower (*Scaevola aemulea*) is a groundcover found in coastal dunes, moist forests, dry sclerophyll, and open forest, all on sandy soils.



INSECTS

The majority of the more than six million insect species on earth play a vital role in maintaining healthy ecosystems. Many of our food crops and trees are pollinated by insects. If all the bee species were to disappear, it has been predicted that the human race would be extinct in less than a decade.

In the Cumberland Plain Woodland, many insects can be seen at work pollinating flowers, recycling nutrients such as carbon by breaking down old wood and animal matter such as scats.

The magnificently colourful Joseph's Coat Moth caterpillar (*Agarista agricola*) loves to eat the Native Grape (*Cayratia clematidea*) which grows in abundance after rain. They become day flying moths with a beautiful black, red, white, blue, and yellow pattern, leading many to think they are butterflies.

Sometimes interactions between plant and insects are all one way – to the benefit of one, and the detriment of the other. Some Fig Trees in Wollongong have recently been under attack by a severe infestation of Fig Psyllid (a common insect pest), causing them to lose their leaves. They have thrived with all the recent rain and humidity but will normally die off naturally in hot dry conditions.



LICHEN

Lichens are not a single life-form, but a 'partnership' species, consisting of a fungus and an alga or a cyanobacterium. The partners share food and shelter each other, giving them the ability to thrive in environments where alone, they would perish. Although small in stature, these organisms contribute mightily to the biodiversity and health of our planet — producing oxygen and recycling carbon. Like bryophytes, lichens are often the early pioneer species in damaged ecosystems. They stabilise soil, preventing erosions, and provide food and habitat for animals. In forests, lichens help create humid microclimates that protect fragile and delicate plants.

MAMMALS

The forest is home to many mammals, who play an important part in the ongoing regeneration of the plants there. Seeds get dispersed in different ways. There are many different ways that seeds get dispersed. One strategy that has evolved in plants is to reward animals to move seeds about. Plants produce delicious and nutritious snacks that animals, mostly birds and mammals, eat on the spot, or take away for later. The seeds



are then processed in the animal's gut and they are then deposited in the animal's scat – droppings, dung, poo, faeces - well away from the mother plant, hopefully in a suitable place to germinate and grow. This type of dispersal is called endozoochory or 'dispersal inside and animal'. Seeds of some species, especially those with fleshy-fruits, germinate better after passing through an animal's gut.

MOLLUSCS

The Red Triangle Slug (*Triboniophorus graeffei*) is Australia's largest native land slug and it's hard to miss! It is a creamy white colour with a red triangle on its back which is where its breathing pore is. They aren't like regular garden slugs which can be a pest to your garden. They will eat microscopic algae, and even remove bathroom mould. If provoked, they have recently been found to expel a sticky mucus as a defence mechanism to stop enemies in their tracks.

PARASITES

A parasite is a living thing that gets its food from another organism, to the detriment of its host. More than half of the Earth's species are parasites! In a forest, parasites attack both plants and animals, and can be both plants or animals! You're probably familiar with leeches, worms and wasps as parasites,

but there's a plant that plays an important parasitic role in the forest. Mistletoe, a popular Christmas icon, is a parasitic plant that lives off the sap of its host. It's an interesting example, as while it's classified as a parasite, recent research suggests it assists in maintaining the ecosystem it's a part of.

SEDGES

Thick leaves and an extensive root system make Spiny-head Mat-rush (*Lomandra longifolia*) very hardy. Growing from swamps to rocky hillsides, it can cope with drought and searing summer heat, and survive temperatures down to -7o Celsius! First Nations people use the long, fibrous leaves to weave baskets, nets and mats. The sweet stem bases are eaten raw, and the seeds are gathered and dried, then pounded into flour for flatbread.

It's hard to feel safe when you're small. The dense clumps of stems and grassy leaves of sedges are a welcome shelter from predators' claws, teeth and talons. Sedges play a vital part in the lifecycles of many birds, mammals and other creatures. Like ferns and fungi, sedges can purify polluted water and soil by absorbing toxins; including arsenic, lead and petroleum hydrocarbons. These poisonous substances are stored in the plants' roots, stems and leaves.





SHRUBS

Rhagodia candolleana (*Coastal Salt Bush*) growing in seaside areas in the Illawarra have tiny ruby-like red fruit that appear in large numbers during summer attracting a number of small birds and the flowers attract the Saltbush Blue butterfly (*Theclinesthes serpentatus*).

The prickly Orange Thorn (*Pittosporum multiflorum*) creates wonderful protective habitat for small birds like Wrens, Finches and the leaves attract Bright Copper butterflies (*Parducia orifer*).

SMALL PLANTS

The seeds of the Yellow Burr Daisy (*Calotis lappulacea*) are carried in spiny fruits that snag readily on the fur of passing animals. The fruits can be carried long distances from the parent plant — a very effective method of seed dispersal! This daisy has long-lasting flowers and is used for the revegetation of bare areas, as it grows rapidly when direct-seeded.



SOIL

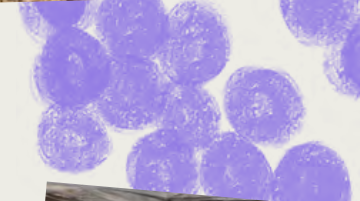
Soil is a living thing: a single teaspoon of soil contains billions of micro-organisms. Beneath your feet is a delicate and complex structure that has formed over thousands of years. The tiny creatures in the soil have large appetites. Constantly converting dead plant material, they add organic material and nutrients to the soil, which acts as a spongy reservoir. Healthy soil increases the health of ecosystems, and plays a vital role in the earth's carbon and nitrogen cycles.

The typical undisturbed soil profile of the Cumberland Plain is derived from shale and, through tens of thousands of years, has weathered to form distinct layers. The top 40 centimetres of the profile is relatively light in texture and is slightly acidic (pH 6), allowing good plant growth. It is home to worms and other creatures. Unfortunately, this part of the profile is often washed away or removed during excavation for new buildings.

The subsoil, which is orange in colour, is not very good for plant growth as it has a higher clay content and pH, holds water and does not supply good aeration for the roots. However, during dry times, this layer helps supply deep-rooted plants with vital moisture.

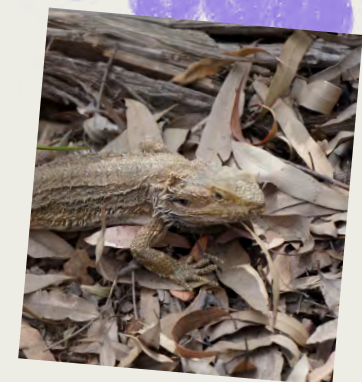


Amazingly, soil can reveal the identity of every species living nearby – including plants, animals, fungi and bacteria! The Botanic Garden's ecology team investigates the structure of forest ecological communities by testing the DNA in soil samples.



TREES

For native animals, living and dead plants provide homes, from the top of the tree canopy to the forest floor. The untidy jumble of fallen logs, leaves and bark shelters countless small creatures including lizards and insects.





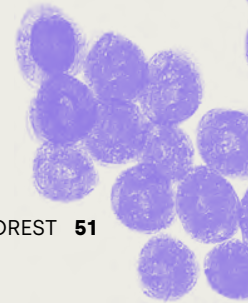
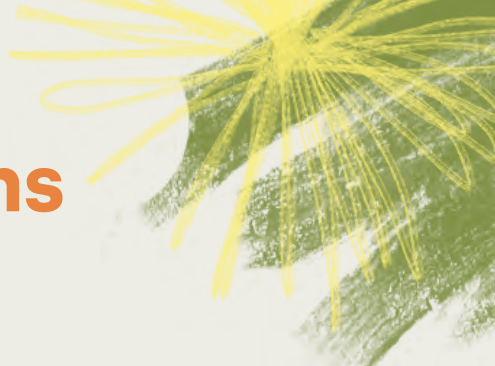
Local Actions

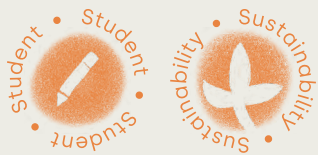
Everyone has a role to play in creating a better future

We know many plant species are already being affected by climate change and the resulting extreme weather patterns, with dramatic shifts in flowering and fruiting times. Sometimes the problem seems so big and out of control that we can feel worried, scared or helpless. The good news is there are a lot of organisations and groups out there working hard to help the planet.

There is also a lot that we can do. Imagine how much space there would be if we added up all the gardens, balconies and outdoor spaces in your local area? That's a lot of space, so if we shift our thinking and all take small steps locally, we can make a big difference. Here's a few things you can try:

- **Plant up your backyard** (or balcony): Add more native plants, and if you can, a tree (remember, the bigger the tree, the bigger the benefit).
- **Remove weedy plants from your garden:** They can spread into natural areas and destroy native plants providing homes and food for wildlife.
- **Tread lightly on natural areas:** Many of us love to explore nature but sometimes our actions can be harmful, even if we don't mean them to be. It's best to leave plants and animals undisturbed in their natural environment. If you love mountain biking, stick to purpose-built legal trails. Illegal tracks can inadvertently damage plants and wildlife like they did at Purrungully Woodland.
- **Install a nesting box:** Is there somewhere you can install a nesting box for possums, birds or bats (micro bats eat LOTS of mosquitos and other pest insects)? We are losing a lot of old large trees with hollows, so this helps provide much needed habitat for our native wildlife.
- **Look after your pets:** Pets, particularly cats, hunt our native wildlife both day and night. Put three bells on collars to help to give prey warning of their approach and keep cats in at night.
- **Avoid using harmful chemicals:** Chemicals like pesticides and fertilisers can cause more harm than good! Of all the species of animals on earth, insects (invertebrates) make up the largest living group on earth. We depend on them to break down waste, clean our water and millions of other things we barely understand. Chemicals are not only harmful to them, but they can be harmful to plants and other animals up the food chain. Poisoning a rat might also kill the Powerful Owl that swoops down to eat it.
- **Become a citizen scientist:** Help scientists by collecting and sharing information about the natural world around you. There are so many projects out there you are sure to find something that interests you, like FrogID, BioBlitz, Globe at Night, the Great Aussie Bird Count or an app to help you identify plant species like PlantSnap.
- **Join a volunteer group:** Find a Bushcare, Dunecare, a community garden, Landcare or other environmental group near you. You'll make friends and learn new things.





Environmental Activism

Case Study: Varsha Yajman

Activist, writer and 2023 commissioned poet Varsha Yajman began her activism when she was just 16 years old. She has been an organiser for School Strike for Climate and the Australian Youth Climate Coalition.

Varsha is now a coordinator at SAPNA South Asian Climate Solidarity Network and a paralegal at Equity Generation Lawyers which conducts climate change litigation. Her work, along with her podcast, Not to be Controversial, aim to create a community for young South Asians to feel represented and empowered.

Here are some youth-led environmental organisations and activists that might inspire your own research, volunteering and local climate actions.

From joining a local clean-up to signing an environmental petition or registering your school for a tree planting workshop, there are so many ways for young people to make a difference.

Varsha Yajman at climate protests

Images: Unknown



Environmental Organisations

- School Strike 4 Climate Australia
- Australian Youth Climate Coalition
- Bye Bye Plastic Bags
- Schools Tree Day
- Greening Australia

Youth Environmental Activists

1 Molly Steer started Straw No More when she was just 9 years old. She's on a mission to encourage every school in Australia to stop using single-use plastic straws in their canteens and tuckshops.

2 Youth slam poet, Solli Raphael, published his first poetry collection at age 13. In 2021, he founded the environmental charity Earth Enablers, an environmental conservation organisation that aims to create a future of equality, transparency, and sustainability.

3 Bundjalung woman Amelia Telford is the National Director of Seed Indigenous Youth Climate Network. She was awarded Australian Geographic Young Conservationist of the Year 2015.

4 Amber Brock Fabel is a 16 year old activist on the Adelaide School Strike 4 Climate team who has also initiated Beach Clean-up Days, advocates for the BinShift waste management program and is forming a South Australia Environmental Forum for Young People.

5 Thursday Island, Larrakia woman and conservationist Tiahni Adamson works with the CSIRO on Indigenous Education programs and was a researcher on a voyage where she spent ten days studying ocean and atmosphere along the west coast of Australia.

Local councils and Botanic Gardens across the country also have Friends programs to get involved.



Seeds and Songlines

Bugam (Bundjalung language) Black Bean
Castanospermum australe Fabaceae — Pea family
Cultural knowledge shared by Clarence Slockee

The towering rainforest tree Black Bean is known as *Bugam* by the Bundjalung people of northern New South Wales. Following spectacular orange-red flowers in summer, Bugam seed-pods hang amongst the glossy leaves high in the canopy — up to 40 metres from the ground. These grow to around 25 centimetres in length, falling to the ground when they ripen in autumn. The large pods hold seeds that are highly toxic, but First Nations peoples used a complex process of pounding and soaking to render them edible.

Over tens of thousands of years, First Nations peoples planted Bugam seeds along travelling routes and gathering places. The Australian Botanic Garden's ecology team worked with Traditional Owners to study the trees along the Nguthungulli Songline, which traverses the main ridge of the Nightcap, Order and McPherson Ranges, inland from Byron Bay in northern New South Wales. They found genetic evidence that supported cultural knowledge, highlighting how First Nations people shaped today's ecological communities by deliberately dispersing food plants.

One of the toxic chemicals found within Bugam seeds, castanospermine, has been shown in clinical trials to be effective against the viruses causing HIV, Dengue fever and Hepatitis C. Castanospermine may be developed into a medicine for treatment of these viruses.



AUSTRALIAN BOTANIC
GARDEN MOUNT ANNAN



Research Partners:

Northern Rivers Connecting
Country Alliance Aboriginal
Corporation

Firesticks Initiative, Macquarie
University, University of Queensland,
Yale University, Australian
Institute of Botanical Science.

Black Bean Distribution and Dispersal

Ancient Aboriginal Process
for Cooking Black Beans

Rainforest Fruit Genetics Confirm
Ancient Aboriginal Pathways



Images: Australian Botanic Garden



Connection to Country

Gadi (Gadigal language), Grass Tree, *Xanthorrhoea* sp.

Connection to Country has always been the heart of Australian First Nations' cultures. Embracing this, we can find a sustainable future together.

Across this great southern land, mighty trunks stand their ground. Crowned by an explosion — a shock of slender leaves, and spears of sweet flowers reaching skywards. For millennia, grass trees (*Xanthorrhoea* species) have held cultural significance for First Nations peoples. The plants give food and medicine, fire-making materials, tools and hunting weapons, but more than that, they are a powerful emblem of the First Nations philosophy of connection and custodianship between people and place.

The Gadigal clan, whose traditional harbour-side lands include the site of the Royal Botanic Garden Sydney, hold grass trees at the core of their being: Gadi is Grass Tree, and gal is people... men are Gadigal — men of the Grass Tree, and women are Gadigelleon — women of the Grass Tree. Many First Nations peoples shared their name with culturally significant plants, a demonstration of profound connection between people, plants and place.

Grass trees are embedded into Australian culture in other surprising ways. Grass tree resin is known as 'Yacca' in the Nunga language of South Australia. Harvesting Yacca is time-consuming and difficult, and the origin of the Aussie slang, 'hard yakka!'



Related Existing Garden Learning Resources:

[ABG Primary School Resources More Trees](#)

[ABG Primary School Resources The SuperPowers of Plants](#)

[ABG Primary School Resources Bushfires in Australia](#)

AUSTRALIAN BOTANIC GARDEN MOUNT ANNAN



Grass Trees, *Xanthorrhoea*
Images: Australian Botanic Garden



Research and Conservation

For almost two centuries, the Botanic Gardens of Sydney has been collecting and studying plants from around the world. Research collections of living and preserved plants are a vital record of diversity. Our scientists use new methods and technologies to study plant biology to understand how plants grow and reproduce — this is the first step in saving species.

The Australian Botanic Garden Mount Annan is home to the Australian PlantBank, and the new National Herbarium of NSW opened in 2021. They are world-class scientific research and conservation centres, dedicated to safeguarding botanical diversity.

Ten percent of Australian species are threatened, in danger of extinction — and over 600 species of NSW flora are now considered endangered, and vulnerable. PlantBank holds millions of living seeds, gathered from wild plants in Australia and beyond. This is an insurance against extinction, and the seeds are used for conservation of wild ecological communities.

We journey into the wilds to study communities of plants, animals and fungi. We investigate natural systems: How do different elements interact, compete, protect and support each other? We exchange ideas within Australia and around the world, and work with knowledge custodians, communities and scientists.

We invest in people and technology. We develop innovative processes and methods to investigate plants in new ways. We continue to find solutions, sharing and applying our knowledge to protect and restore threatened ecological communities.

Every year we plant hundreds of trees in our Botanic Gardens and conservation bushland areas. We grow and study threatened plants to learn how we can protect them in the wild. We contribute to restoration projects, repairing damaged ecological communities. We investigate ways to help plants cope with the challenges of disease and climate change.

AUSTRALIAN BOTANIC
GARDEN MOUNT ANNAN



Australian
PlantBank

Images: Australian
Botanic Garden

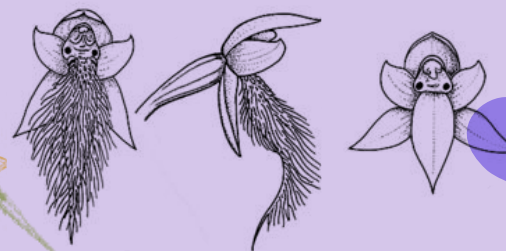


Weed Warriors

Bizarre and beautiful, the Purple Bearded Orchid (*Calochilus robertsonii*) is one of Australia's mysterious ground-orchids; flowers appearing like magic from an underground bulb. The name 'calochilus' means 'beautiful lip' and the tiny, hairy flowers are just one centimetre wide! It is a challenge to find in the wild, not just because it is so small, but also because it is ephemeral — only visible for a short time when in flower — and sometimes lies dormant for several years.

Like many native plants, ground-orchids come under attack from weeds that compete for space, light and nutrients. Once established, weeds change the balance of ecological communities, severely affecting plants, animals and fungi.

A weed is a plant out of place. In its natural home, a plant will grow in balance with other plants, animals and fungi in an ecological community. These relationships have evolved over millennia. Separated from its natural competitors, diseases and herbivores, any plant can take the advantage and become a voracious weed. Throughout history, people have transported plants and seeds across the world. Plants introduced as crops or garden ornamentals sometimes 'jump the fence' and become environmental weeds. They invade bushland, displacing native plants and animals. A local example at the Australian Botanic Garden Mount Annan is the African Olive, (*Olea europaea* subsp. *cuspidata*). Originally introduced from South Africa as a garden plant, this weedy tree has spread rapidly throughout Western Sydney. Adult African Olive trees produce around 25,000 fruits each year.



AUSTRALIAN BOTANIC
GARDEN MOUNT ANNAN

What Can You Do?

You're the best witness of changes in your local area: If you notice new and unfamiliar plants appearing in bushland near you, please send The Australian Botanic Garden photos and location information (mount.annan@bgcp.nsw.gov.au)

Significant spread of weeds is particularly likely after fires or other disturbances, and tracking the spread is the first step in controlling invasion.

The seeds of many weeds are dispersed by animals. You can help stop the spread! Check clothing and your pet's fur before leaving infested areas and remove the fluffy or spikey seed heads. Learn how to identify weeds at NSW WeedWise.

Department of Primary
Industries NSW: WeedWise

Weeds Australia

Department of Agriculture,
Water and the Environment:
Weeds in Australia



POEM FOREST

Write a poem. Plant a tree.

The Story

Hi, my name is Tamryn and I'm the former Artistic Director at Red Room Poetry, where the dream of POEM FOREST first sprouted. I grew up in a plant nursery and was named after the Tamarind tree. Being in nature, listening to the leaves and songs of insects has always been a big part of my life and my writing. I'm fascinated by the way nature shapes our stories, our DNA, and how trees become our books, homes, cubby houses, bodies, medicine, pencils, our very breath ... but sometimes we still take it for granted.

By deepening our connections with nature through poetry, honouring habitats, and planting trees to care for Country, hopefully POEM FOREST can help us see how much nature is a part of us and we are part of it.

It takes many years and hands to make a forest. POEM FOREST wouldn't be possible without all of you sharing your words and the web of people who support its growth like mycelium.

With special thanks to our first Poem Forest Patron, John B. Fairfax, AO and those who have shared their ideas, watered the roots, turned the soil and nurtured Country across the Red Room Poetry team, Wollongong City Council and our creative communities.

~ **Tamryn Bennett**
Founder, POEM FOREST

This is a unique way of engaging hearts and minds through poetry, connecting to Country, as well as exploring the value of trees and nature and all the benefits they provide.

We have a big target of increasing the tree canopy cover in Wollongong from the current 17%, to our goal of 35%-40%. With some of the lowest canopy cover in all of NSW, these trees are critical in creating a better future.

We couldn't be happier to see so many of our streets, parks, Tiny Forests and natural areas grow – all thanks to everyone involved in POEM FOREST, especially those of you sharing your words and planting up your own gardens.

~ **Paul Tracey**
**Manager Open Space &
Environmental Services, Wollongong City Council**

POEM FOREST

Partners and Supporters



Red Room Poetry

Red Room Poetry's vision is to make poetry in meaningful ways. Our poetic projects are created in collaboration with a spectrum of poets, communities and partners for positive impact.

redroompoetry.org



Wollongong City Council

Wollongong City Council and Wollongong Botanic Garden are partnering with POEM FOREST in 2024 to help grow Wollongong's urban forest. Through the combined effort of the community in planting today, we can create a better tomorrow.

wollongong.nsw.gov.au/greening



The Australian Botanic Garden Mount Annan

The Australian Botanic Garden Mount Annan is part of Dharawal Country in south-western Sydney. It is home to remnants of ancient forests that once covered much of western Sydney, as well as over 4000 native plant species from all over Australia. The Garden belongs to everyone — a place to spend time and grow connections, curiosity and understanding of nature, culture and science.

australianbotanicgarden.com.au

Supporters

Sincere thanks to our generous Partners and Supporters who have made the POEM FOREST possible:



ORANGES & SARDINES

Graeme Wood
foundation



Hardie Grant
EXPLORE



Craig and Joy Lawn

Corban & Blair

[See full list of supporters](#)

Contact w: redroompoetry.org/projects/poem-forest e: poemforest@redroompoetry.org t: 02 9319 5090



Curriculum Links

Australian Curriculum priorities and outcomes supported by POEM FOREST include English, Science, Sustainability, Aboriginal and Torres Strait Islander Histories and Cultures, The Arts, Technologies, Humanities and Social Sciences.

English

F – (ACELA1426) (ACELA1429) (ACELA1430) (ACELA1431) (ACELA1432) (ACELA1433) (ACELA1434) (ACELA1435) (ACELA1439) (ACELT1575) (ACELT1783) (ACELY1646) (ACELY1650) (ACELY1651) (ACELY1652)

Yr 1 – (ACELA1787) (ACELA1447) (ACELA1448) (ACELA1449) (ACELA1452) (ACELT1583) (ACELT1584) (ACELT1585) (ACELY1660) (ACELY1661) (ACELY1662)

Yr 2 – (ACELA1462) (ACELA1464) (ACELT1587) (ACELT1589) (ACELT1590) (ACELT1591) (ACELT1592) (ACELY1789) (ACELY1668) (ACELY1670) (ACELY1671) (ACELY1672)

Yr 3 – (ACELA1475) (ACELT1596) (ACELT1598) (ACELT1600) (ACELT1791) (ACELY1676) (ACELY1678) (ACELY1679) (ACELY1792) (ACELY1683)

Yr 4 – (ACELT1602) (ACELT1603) (ACELT1605) (ACELT1606) (ACELT1607) (ACELY1690) (ACELY1695)

Yr 5 – (ACELA1512) (ACELT1608) (ACELT1610) (ACELT1611) (ACELY1704) (ACELY1705) (ACELT1798)

Yr 6 – (ACELA1518) (ACELA1520) (ACELA1523) (ACELA1525) (ACELT1614) (ACELT1615) (ACELT1617) (ACELT1800) (ACELT1618) (ACELY1715) (ACELY1714) (ACELY1717)

Yr 7 – (ACELT1625) (ACELT1803) (ACELT1805) (ACELY1725) (ACELY1726) (ACELY1728)

Yr 8 – (ACELA1542) (ACELA1547) (ACELT1768) (ACELT1630) (ACELY1738) (ACELY1810)

Yr 9 – (ACELA1553) (ACELA1770) (ACELA1557) (ACELT1635) (ACELT1637) (ACELT1773) (ACELY1747) (ACELY1748)

Yr 10 – (ACELT1643) (ACELT1644) (ACELY1753) (ACELT1814) (ACELT1815) (ACELY1757)

Yr 11 – Literature, Create Imaginative Texts

Yr 12 – Literature, Create Imaginative Texts

Science

F – (ACSSU002) (ACSSU004) (ACSHE013) (ACSHE021) (AC SIS014) (AC SIS233) (AC SIS012)

Yr 1 – (ACSSU211) (ACSHE022) (ACSHE035) (AC SIS024) (AC SIS029)

Yr 2 – (ACSSU030) (ACSHE034) (ACSHE035) (AC SIS037) (AC SIS042)

Yr 3 – (ACSSU044) (ACSSU073) (ACSHE050) (ACSHE051) (AC SIS053) (AC SIS060)

Yr 4 – (AC SIS064) (ACSHE062) (AC SIS071)

Yr 5 – (ACSSU043) (ACSHE083) (AC SIS231) (AC SIS093)

Yr 6 – (ACSSU094) (ACSHE100) (AC SIS232) (AC SIS110)

Yr 7 – (ACSSU111) (ACSSU116) (ACSHE223) (ACSHE120) (ACSHE121) (AC SIS124)

Yr 8 – (ACSHE226) (ACSHE135) (ACSHE136) (AC SIS139) (ACSHE121)

Yr 9 – (ACSHE158) (ACSHE228) (AC SIS164)

Yr 10 – (ACSHE158) (ACSHE192) (ACSHE230) (AC SIS198)