Flooded Gum

Eucalyptus rudis

Local Noongar name: *moitch*

Fun Fact!
The origin of the name is in Latin. Rudis means "rude" or "rough", suggesting the timber was regarded as worthless.

Conservation Status
Not threatened

Size
- 5 to 20 m height



Bark
- Rough, fibrous grey over part or the entire trunk, becoming tessellated on older trees. On rare occassions, the trunk is entirely smooth, greyish white and dark grey.



Flowers
- White flowers.
- 8 to 12 mm long by 4 to 7 mm wide.
- Have been recorded in March, and between July and November.



Fruit
- Hemispherical in shape
- 4 to 7 mm long by 7 to 10 mm wide.



Leaves
- **Juvenile leaves:** Dull, greyish-green, ovate, deltoid or orbicular.
- **Adult leaves:** Dull to slightly glossy green, lanceolate to falcate in shape.
- Adult leaves can be 70 to 180mm long and 10 to 35 mm wide.



Provide habitat for...
- They are a significant source of nectar for honey bees, native bees, and other pollinators.
- Its large size and rough bark also provide important habitat for reptiles, birds, frogs and invertebrates.
- The hollows in flooded gums are used for nesting by black ducks, grey teal, wood ducks, bats, possums, kingfishers, pardalotes, owls, cockatoos and parrots.

Uses
- **Indigenous uses:** Moitch stand as a guardian of waterways. The sap was extracted for medicinal and adhesive purposes, and crushed leaves were applied as a poultice to stop bleeding. The wood was used to craft tools and weapons, and the bark served to create shelters. Leaves were woven into baskets and used to wrap food. Manna, the edible substance produced by mites living on the leaves, was collected and rolled into a sweet treat to suck on.
- **Beekeeping:** Source of light amber honey.
- **Salinity mitigation:** The tree is relatively fast-growing with potential for remediation of land affected by moderate levels of salinity.
- **Timber:** It has been used as firewood but the wood also has potential for use as specialty timber.

Where to find them
- **Local range:** The flooded gum is found across the shire of Toodyay growing along the banks and flood plain of the Avon River including locations like Extracts Weir and the Bilya Walk Trail.
- **Habitat:** It is predominately found on stream banks, floodplains, on silty soils over clay subsoils.

Kindly funded by the Toodyay Naturalists' Club and the Toodyay Friend's of the River.
A special thank you to the Noongar Kaartdijin Aboriginal Corporation for sharing their valuable knowledge of Noongar culture and traditional plant uses.

More info: bit.ly/forest-elements

Jam Wattle

Acacia acuminata

Local Noongar name: *mungart*

Fun Fact!

Jam wattle is the floral emblem of Toodyay and has many common English names such as Raspberry Jam, Jamwood, and Jam after the strong aroma of its cut wood.

Conservation Status

Not Threatened

Size

- 5 to 10 m height.



Bark

- Grey bark that is longitudinally fissured on main stems and smooth on upper branches.



Flowers

- Yellow, fuzzy rods.
- 10 to 30 mm long.
- Flowers heavily in late winter/spring.



Fruit

- Papery to leathery seedpods, 30 mm to 80mm long.
- Disc shaped seeds are about 5mm in diameter.



Leaves

- Its phyllodes (flattened, expanded leaf stalks) which act as true leaves, are linear to narrowly elliptic in shape.
- 80 to 250mm long and 2 to 8mm wide.



Provide habitat for...

- Parrots feast on its seeds.
- Native bees, wasps, butterflies and beetles feed on the nectar and pollen during the flowering period.
- Grey kangaroos graze the foliage and use the tree as shelter.

Uses

- **Indigenous uses:** This hardwood tree was vital in Noongar culture, with its durable wood crafted into tools, and its kwolak (seeds) ground into flour for damper. Its gum was chewed to aid digestion, and resin collected from the bark served as an adhesive for tool-making. Crushed flowers released soothing vapours that calmed the mind for a good night's sleep.
- **Sandalwood host:** It's an ideal nitrogen-fixing host tree planted alongside commercial sandalwood (*Santalum spicatum*) to support its growth.
- **Timber:** The dense wood is termite resistant making it ideal for fence posts and the beautifully grained timber is prized for furniture making.

Where to find them

- **Local range:** It is endemic to WA, found commonly in the SW and throughout the wheatbelt.
- **Habitat:** Jam wattle is a hardy tree that prefers free draining soil in full sun. It tolerates drought, salt and frost.

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More info: bit.ly/forest-elements

Jarrah (blue-leaved)

Eucalyptus marginata subsp. thalassica

Local Noongar name: djara

Fun Fact!
Jarrah 'sinker' roots can grow as deep as 45 metres underground to reach the water table and survive long dry summers.

Conservation Status

Near Threatened

Due to extensive clearing and land use, very little Jarrah forest remains. The fungal disease, Dieback, has also had a devastating affect on the forests.

Size

- 5 to 25 m height



Bark

- Stringy, rough, fibrous, greyish-brown, vertically grooved bark which sheds in long, flat strips.



Flowers

- White flowers.
- Flowers during spring and summer.



Fruit

- Spherical to barrel-shaped.
- 0.6-2 cm long, 0.6-1.4 cm wide.



Leaves

- **Juvenile leaves:** Dull blue-grey, ovate to broad-lanceolate in shaped.
- **Adult leaves:** Dull blue-grey to grey-green, lanceolate to broad-lanceolate in shape.
- Adult leaves can be 55–120 mm in length and 16–30 mm wide.



Provide habitat for...

- Bird species use the fissured bark and branches for nesting, while honeyeaters drink the rich nectar from jarrah blossoms.
- Insects, reptiles and bats find shelter and feed under its bark and in crevices.
- The trees form a vital underground partnership with the mycorrhizal fungi that quendas feed on and disperse through their droppings.

Uses

- **Indigenous uses:** Branches were used for spears and digging sticks while coolamons (carrying vessels) were cut from the bark. The thick fibrous bark was also stripped to construct shelters. The tree's gum has medicinal qualities and was used as a mild local anaesthetic and to treat stomach upsets. Nectar (ngonyang) was extracted either by sucking it directly or soaking flowers in water to make a sweet drink (neip).
- **Beekeeping:** Honey is highly prized by apiarists
- **Timber:** Historically known as Swan River mahogany, it has been used for construction of buildings, used for flooring and high grade furniture and cabinet making.

Where to find them

- **Local-range:** Found primarily in the NE Darling Range stretching as far as New Norcia and extending marginally into the Wheatbelt.
- **Habitat:** It occurs in a variety of soils, but mostly occurs on lateritic slopes and hilltops.

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More info: bit.ly/forest-elements







Julimar Brook is located in Julimar State Forest (Djoorla-Maart is the Country from which Julimar takes its name). It flows predominantly through forest and woodlands, has a catchment of just over 100 sq km, with 86 sq km of that within the Forest. Historically, it had water quality so high that it was once considered for a public water supply.

The watercourses within the Julimar State Forest and their immediate surrounds are vital micro-habitat environments, fostering an increased diversity of fungi, flora, and fauna.

Crucially, the brooks flowing through the Forest originate almost entirely in areas of native vegetation. This means the water is exceptionally clean, free from pesticides and artificial fertilisers – a factor that contributes significantly to the health of arthropods, amphibians, and the local soil biome.

The intact Forest also actively protects the Julimar Brook catchment from salinity, a known risk of clearing in the area.

Julimar Brook

Health of our waterways

The Julimar State Forest is a key component of the massive Swan-Avon River (Gugulja) system.

The Forest's various brooks, including the Spice, Biggs, Munyerring, Julimar, and Malkup Brooks, all drain into the Brockman and Avon Rivers. The Avon then flows into Perth's iconic Swan River (Derbarl Yerrigan).

This deep connection means that the health of the Forest is directly linked to the health of communities downstream, potentially affecting water quality all the way to the Perth CBD and the coastal waterways of the Indian Ocean around its outlet at Fremantle.

Djoorla-Maart (Julimar) sacred waters

By Noongar Kaartdijin Aboriginal Corporation of Dudjabup (Toodyay)

Kep-wari (springs, pools) and Bilya (rivers) were central to Noongar daily life – providing water, food, and medicine. These waters are part of a wider forest ecosystem, supporting life from the canopy to the understory, nourishing plants, animals, and people alike.

Families cared for these places under cultural lore, guided by protocols that ensured sustainability and respect. They remain powerful sites of healing, ceremony, and connection to country, locations where family camps were established, and are integral to the journey of the Waagyl (spirit snake).

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More info: bit.ly/forest-elements

Marri (Red Gum)

Corymbia calophylla

Local Noongar name: *marri*

Fun Fact!
The biggest known marri tree is 71 metres tall!

Conservation Status
Not threatened

Size
- 40 m - 60 m height.
- Up to 2 m wide.



Bark
- It has rough tessellated grey-brown to red-brown bark covering the entire height of the trunk and branches.



Flowers
- White to pink flowers.
- 6 to 14 mm long and 6 to 10 mm wide.
- It flowers between December and May .



Fruit
- The large fruit are oval to urn-shaped, wide.
- Often referred to as 'honky nuts'.
- 30 to 50 mm long and 25 to 40 mm wide.



Leaves
- **Juvenile leaves:** Glossy-green, broadly lance-shaped to lance-shaped.
- **Adult leaves:** Thick and glossy-green, broadly lance-shaped to egg-shaped and tapered or rounded at the base.
- Adult leaves can be 90 to 140 mm long and 25 to 40 mm wide.



Provide habitat for...
- The Marri nuts are part of the staple diet of critically endangered Black Cockatoos, red-capped parrots and ring-necked parrots.
- Baudin's Black-Cockatoos breed in large hollows of old Marri within heavily forested areas.

Uses
- **Indigenous uses:** It's known to the Noongar people as the 'medicine tree'. Mayat, the red resin, was powdered to stop bleeding, mixed with water as medicine, or applied as an anti-inflammatory to treat eczema. Crushed leaves were inhaled for headaches, heated for colds, and smoke eased respiratory issues while repelling insects. Its flowers were soaked in water to make a sweet drink (neip) or blood purifier. Resin was used to tan yonga (kangaroo) skins, while its strong wood was crafted into tools and served as fuel for cooking and warmth.
- **European Adoption:** Colonial settlers adapted both medicinal and tanning uses, eventually exporting the resin to England.
- **Timber:** Increasingly featured in modern household furniture, however, it is not used in construction as the wood structure exhibits complex faults.

Where to find them
- **Local range:** It is widely distributed from north of Geraldton to Cape Riche and inland to Narrogin. It is found on the Swan Coastal Plain and Darling Scarp, adapting successfully to different soil types and environments.
- **Habitat:** Marri will grow on comparatively poor soil. It is able to grow in red-brown clay loams, orange-brown sandy clays, gravel and grey sandy soils over limestone, granite or laterite.

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More info: bit.ly/forest-elements

Powderbark Wandoo

Eucalyptus accedens
Local Noongar name: *wandu*

Fun Fact!

Powderbark's namesake is derived from the smooth bark covered in a talc-like powder, which is white when fresh. As the outer layer ages and prepares to shed, it transitions into a striking orange hue which distinguishes it from Wandoo.

Conservation Status (WA)

Not threatened



Bark

- The smooth bark is notable for being covered in a talc-like powder and is pale-white when fresh.
- It turns a shade of orange before being shed at the end of summer which distinguishes it from E. wandoo.
- It is believed that it produces oils, leaf extract, or bark compounds that suppress surrounding plant growth (allelopathy).

Size

- 15 to 25 m height.
- up to 1.5 m diameter.



Flowers

- White flowers.
- Flowers in groups of 7, 9, or 11.
- 6-12 mm long x 6-9 mm wide.
- Flowers between December and April.



Fruit

- Cylindrical to barrel-shaped.
- 6-12 mm long x 6-9 mm wide.



Leaves

- **Juvenile leaves:** Blue-green, egg-shaped, lance-shaped or diamond-shaped.
- **Adult leaves:** Greyish-green or greyish-blue, lance-shaped or have a curved lance shape.
- Adult leaves can be 75–125 mm in length and 10–28 mm wide.



Provide habitat for...

- Carnaby's Black-Cockatoos rely on mature E. accedens with sizeable hollows to safely build nests and raise their young.
- Smaller animals like the Rufous Treecreepers and the Brush-tailed Phascogale use smaller tree hollows for nesting.
- The flowers with shallow pools of nectar and abundant pollen, invite a diverse range of local insect species.

Uses

- **Indigenous uses:** The leaves were used as bedding and in steam pits for people with colds, influenza and rheumatism.
- **Beekeeping:** Honey is highly prized for its smooth, silky texture and unique flavour profile featuring toffee apple and caramel undertones.
- **Timber:** It was used for heavy-duty, high-stress applications such as railway sleepers, fence posts, and mining supports. However, its extreme hardness made it highly destructive to early milling equipment.
- **Insect deterrent:** The unique talc-like powder on the trunk was found in scientific studies to act as a natural deterrent against crawling insects, resulting in high mortality rates.

Where to find them

- **Local range:** Includes the Geraldton Sandplains, Jarrah forests and the Swan Coastal Plain. It is found atop higher ground throughout the Toodyay Shire.
- **Habitat:** It grows in gravelly or clay-loam soils over laterite, on stony ridges or breakaways and often above E. wandoo.

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More info: bit.ly/forest-elements

Wandoo (White Gum)

Eucalyptus wandoo subsp. wandoo
Local Noongar names: wandu or wornt

Fun Fact!
Wandoo can live to over 150 years with some reaching over 400 years!

Conservation Status
Not threatened

Size
- 3 to 30 m height.
- 80 to 100 cm diameter.



Bark
- **Juvenile trees:** Rough, yellowish bark.
- **Adult trees:** Smooth, creamy to white trunks with grey and light brown patches.



Flowers
- White flowers.
- Flowers in groups of 9 to 17.
- 8 to 14 mm long and 2 to 4 mm wide.
- Flowers during winter or spring annually or every 2 to 4 years.



Fruit
- Conical to cylindrical in shape.
- 6 to 10 mm long and 5 to 6 mm wide.



Leaves
- **Juvenile leaves:** Blue-green, egg-shaped, lance-shaped or diamond-shaped.
- **Adult leaves:** Greyish-green or greyish-blue, lance-shaped or have a curved lance shape.
- Adult leaves can be 75–125 mm in length and 10–28 mm wide.



Provide habitat for...
- Wandoo has earned the nickname "nature's boarding house"because mature trees and fallen logs provide vital housing and food for a variety of species.
- Old growth Wandoo's provide deep, spacious hollows that the Carnaby's Black-cockatoos require for breeding.

Uses
- **Indigenous uses:** Leaves were steamed or applied as poultices for congestion while ground gum was used as an ointment for its antibiotic properties. The sweet and juicy outer part of the roots were scrapped and eaten and the flowers soaked in water for a sweet drink (neip). Around Wandu / Wornt , softened earth after the first rains made bush potato (Djubak) easier for women (Yorga) to dig.
- **Beekeeping:** Highly valued by apiarists for producing high-grade honey.
- **Timber:** Extremely dense, termite-resistant, non-corrosive wood used for heavy-duty applications like railway sleepers.
- **Industrial tannins:** Extraction of tannins for the leather, fishing, and petroleum industries in the 1960s.

Where to find them
- **Local range:** Largely cleared for agriculture they were once widespread across Toodyay, Northam, and York Shires. Remaining stands are limited to NW Toodyay, Julimar State Forest, Bindoon Army Training Area, and Wongamine Nature Reserve.
- **Habitat:** Grows in clay sub-soil valleys and laterite slopes.

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More info: bit.ly/forest-elements

York Gum

Eucalyptus loxophleba subsp. loxophleba
Local Noongar name: *djaawit*

Fun Fact!
The common name "York gum" comes from the tree's abundance around the early settlement of York.

Conservation Status (WA)
Not threatened

Size
- 5 m - 15 m height.
- Up to 0.6 m diameter.



Bark
- The trunk is rough, fibrous-flaky or smooth bark. Upper branches are smooth grey-brown over copper.



Flowers
- White flowers.
- 5 to 8 mm long 3 to 4 mm wide.
- It flowers between May and November.



Fruit
- The fruit is a woody, conical capsule with the valves below the rim of the fruit.
- 4–8 mm long and 4–6 mm wide.



Leaves
- **Juvenile leaves:** Triangular, egg-shaped or circular glaucous.
- **Adult leaves:** Dark green and glossy on both sides. Lance-shaped.
- Adult leaves can be 70 to 155 mm long and 10 to 20 mm wide.



Provide habitat for...
- York Gums are used as breeding sites, roosting sites and a source of food by birds, including the critically endangered Carnaby's Black Cockatoo.
- Their hollows are also used by reptiles and small mammals such as bats.

Uses
- **Indigenous uses:** The gum was crushed to a powder and placed on burns as an antibacterial to prevent infection while the leaves were crushed and heated and applied to scorpion and insect bites. The roots of the young saplings were pounded into paste and eaten to relieve an upset stomach.
- **Salinity mitigation:** Can be used for remediation of dryland salinity since natural populations grow in these conditions.
- **Timber:** Historically, the wood of ssp. *loxophleba* was used by wheelwrights for wagon building because of it's superior strength. This was due to it's interlocking grain.

Where to find them
- **Local range:** They are distributed across WA from the midwest, south through the wheatbelt and east into the goldfields/ Esperance region. In the Toodyay Shire, good examples can be found in Pelham Reserve and the Bewmalling Reserve in the north of the shire.
- **Habitat:** It grows in red-brown or rocky loam, sand, sandy clay over laterite, dolerite and granite.

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