# Indigenous Plant Use Talk Supplementary Notes

Notes prepared by Glenys Bishop September 2023 to supplement PD talk on Indigenous Use of Plants. The notes for plants are presented in the order in which they were discussed in the slides used in the talk. Notes on extra plants, indicated by \* in the table, included at the end were prepared by Joanne Smith.

The order of plants in the Plant List represents a walk around the gardens to find them.

Name	Uses	Locations
Lomandra longifolia (Spiny	Food, medicine, weaving	Grassy woodland, outside VIC
Mat Rush)	material	and steps, §210, 134
Exocarpos cupressiformis	Fruit, briefly	Near Eastern mallee, near seed
(Native cherry)		bank (§124)
<i>Kunzea pomifera</i> (muntari)	Fruits Food feast and dried for	Eastern mallee (211)
	storage, briefly	
<i>Themeda triandra</i> (Kangaroo	Grain	Grassy woodland in pot,
Grass)		outside Ellis Rowan
*Eucalyptus macrorhynca		§224, opposite clock
Casuarina & allocasuarina	Household, wellbeing	Casuarina pool, Rock garden,
		§110, Red Centre Garden
Carpobrotus rossii (Mallee	Fruit, leaves, medical	Tasmanian RF §67
Pigface)		
*Acacia melanoxylon	Medicine, fishing, clap sticks,	Rainforest near cafe
	shields	
Clerodendrum floribundum	Medicine	Northern rainforest verge
(Lolly Bush)		
Melaleuca decora (Paperbark)	Cooking, medicine, household	§126, 109
Rubus moluccanus var. trilobus	Fruit	Northern rainforest verge
Hibiscus heterophyllus (Native	Flowers, shoots, roots, leaves	Northern rainforest verge, opp
rosella)		Brittle gum lawn
*Austromyrtus dulcis	Fruit	Main path entrance to
(Midgenberry)		rainforest
Citrus australasica (Finger	Fruit	Inside track in rainforest, just
limes)		past seat.
Davidsonia jerseyana	Fruit	Northern rainforest verge,
(Davidson's plum)		above MP entrance
Persoonia pinifolia (Geebung)	Fruit	§110, near VIC (S224)
*Macrozamia communis	Cones with seeds	§105 gymnosperms
Podocarpus elatus (Plum pine)	Fruit	Gymnosperms, towards Rock
		Garden
Eustrephus latifolius (wombat	Tubers	VIC, rainforest (§145, 146),
berry)	Also fruits	Gymnosperms (§105)
*Geijera parviflora (Wilga)	Pain relief	§78
A.longifolia subsp sophorae	Pods eaten	§2
(coast wattle)		
Xanthorrhoea spp	Multi purpose	Top of Rock Garden, Sydney
		region, café bridge

#### List of Plants

*Brachychiton populneus	Seeds, shoots eaten	A bit further along
(Kurrajong)		
Acacia kempeana (Witjuta)	Seeds, witchetty grubs	Red Centre Garden
Acacia ligulata (Umbrella bush)	Seeds, witchetty grubs	Red Centre Garden
Acacia aneura	Seeds, sweet exudation,	Red Centre Garden, Rock
	timber	Garden
Triodia sp (Porcupine Grass)	Grain	Red Centre, Rock Garden,
		Eastern Mallee
*Eremophila longifolia (Long-	Medicinal, domestic	Red Centre
leaved eremophila)		
Citrus australasica (Finger	Fruit	Top of rainforest
limes)		
Tasmannia insipida (Pepper	Pepperberries	Rainforest §64 end of path,
berry)		§65 in seat area
Araucaria bidwillii (Bunya pine)	Nuts food feast, briefly	Upper rainforest, front gate
*Cordyline petiolaris (Palm lily)	Food, food wrap	Rainforest MP 119
*Davidsonia jerseyana	Fruit	§313 at end of rainforest
(Davidson's plum)		
*Dubosia myoporoides	Medicinal anaesthetic	End of rainforest

# **General Comments**

## Foods

We should recognise that there were many First Nations living in various parts of Australia and each would have had access to the plants in their area. Different plants would be used for similar purposes in different parts of the country.

While for aboriginal peoples, quantity, accessibility, and high nutritive value were the most sought after qualities in foodstuffs, bland tastes were frequent, especially where extensive detoxification had been required - for example in black beans, cycads and some yams. <u>Edible Acacias (anpsa.org.au)</u>

## Medicines

A lot of the information on medicinal uses is probably irrevocably lost – particularly in the more settled, industrialised Eastern States. There is often a view that Tasmanian Aborigines had little medicinal plant knowledge – probably unlikely and simply reflects their early population loss.

A common mistake is to assume plants of the same species are chemically identical. This is thought to be more than seasonal or local climatic conditions but due to natural variability within species. Perhaps it is more surprising to us because in other parts pf the world plants have been more intensively managed by people resulting in less individual variability. Indigenous people knew this (Lassak and McCarthy, "Australian Medicinal Plants") with many examples of a plant from one area being used in a particular way but not if it was in a different area.

# **Plant Information**

**Araucaria bidwillii (Bunya Pine)** When this tree is mature it bears large green cones and inside each scale of the cone is a hard-shelled nut about 5 cm long. These nuts were such popular food that tribes came from hundreds of kilometres around the Bunya Mountains in Qld to feast on them. Particular trees were considered to be the property of certain Aboriginal families, but everyone was invited to share the delicious nuts, which are not unlike chestnuts when roasted in the fire. They could also be made into a gluten free flour. Tim Low (1991) Wild Food Plants of Australia

*Eustrephus latifolius* (Wombat Berry) This plant occurs from southern Victoria to the tip of Cape York and in PNG. The fruits are 1.5 -2 cm in diameter with 6-18 seeds. Each seed has a little white <u>aril</u>, like the red arils on pomegranate seeds. Skin and seeds discarded: many seeds, not much flesh, not very flavoursome. The roots bear small tubers up to 3 cm long. Ferdinand von Mueller arrived in SA in 1847, aged 22 and later moved to Victoria. He travelled extensively in Australia collecting plants and was appointed government botanist in Melbourne and later director of the Botanical Gardens. He investigated the suitability of land for farming and the suitability of plants for cultivation. In his view *"This climber produces sweet though only small tubers, which, however, are probably capable of enlargement through culture." He thought it could be make a suitable food crop, but it never happened.* 

<u>Australian Native Plant Profile: Wombat Berry (Eustrephus latifolius) - Dengarden</u> Beasley, John (2009) *Plants of Cape York, the compact guide.* Cribb, A.B. & Cribb J.W. (1975) *Wild food in Australia*, Collins, Sydney.

*Kunzea pomifera* (Muntries) Berries were probably a staple food of Aborigines between Yorke Peninsula, SA, and Portland Bay, Vic. Around the Glenelg River, Aborigines came from afar during the muntari season. Further east in the South Australian Coorong, Aborigines pounded and dried excess fruit into large cakes that were stored for eating during winter, when other foods were scarce, or were traded with other tribes. Tim Low (1991) Wild Food Plants of Australia

#### Acacias

The seeds of 42 species of Acacia have been identified as a food source for Aborigines in the temperate dry zone of Australia, i.e. below the Tropic of Capricorn, away from the east coast.

They are: A. acuminata, A. ammobia, A. aneura, A. ayersiana, A. baileyana, A. burkittii, A. brachystachya, A. confluens, A. coriacea subs. sericophylla, A. cuthbertsonii, A. craspedocarpa, A. dictyophleba, A. estrophiolata, A. farnesiana, A. inaequilatera, A. jennerae, A. kempeana, A. ligulata, A. linophylla, A. macdonnelliensis, A. maitlandii, A. microbotrya, A. murrayana, A. notabilis, A. olgana, A. omalophylla, A. oswaldii, A. pachyacra, A. palustris, A. pruinocarpa, A. pycnantha, A. ramulosa, A. retinodes, A. rivalis, A. salicina, A. saligna, A. sclerosperma, A. stenophylla, A. tyronii, A. victoriae, A. xiphophylla.

In an assessment of the nutritional value of wattle seeds, 58 sample representing 26 species were analysed and found to contain, on average, 23% crude protein, 26% available carbohydrate, 32% fibre. The carbohydrates have a low glycaemic index, i.e. they are absorbed quite slowly, so providing energy over a long period. Protease inhibitors, which inhibit protein breakdown into amino acids, are present but are deactivated by cooking the seeds.

Indigenous people usually cooked the seeds after extracting then from the seed pods, then grinding them into a flour, which was gluten free, and combining with liquid to make cake. These were time consuming tasks.

Green wattle seeds, such as those from *A.longifolia subsp sophorae*(coast wattle), are quite similar in composition to cultivated garden peas. However, they are best cooked (usually by lightly baking) to deactivate the protease inhibitors. These were eaten by coastal dwelling indigenous people

Some tropical dry-zone species (*A. colei, A. elacantha, A. tumida*) contained toxic non-protein amino acids, e.g. djenkolic acid, but at such low levels that they would not be harmful.

*Acacia victoriae* is the most important species of Acacia in the Australian bushfood industry, partly because it is very widespread through inland and some coastal areas, grows quickly, and has fairly large seeds. Also, the seed crop is somewhat unreliable and has failed over large areas in some years. Mostly, commercial products are prepared by lightly baking the seed, then grinding it to a powder. The most popular commercial products containing wattle seed are breads, biscuits, cakes, and ice cream.

Maslin, BR, Thomson, LAJ, McDonald MW, Hamilton-Brown S. (1998) *Edible wattle seeds of southern Australia*.

Edible Acacias (anpsa.org.au)

The seeds of some other acacias, such as A.colei, were consumed in other parts of Australia. See Wattle Walks 2023 notes.

NB Some species of acacia contain psychoactive alkaloids, and some contain potassium fluoroacetate, a rodent poison. <u>Acacia - Wikipedia</u>

Acacia kempeana (Witjuta Bush) and Acacia ligulata (Umbrella Bush) (both in the RCG) are the principal Acacia hosts for the Cossid moths (*Endoxyla leucomochla*) whose larvae provide witjuta (witchetty) grubs. The larvae live on or in the roots of the shrubs and are popular with Aborigines. They resemble egg yolk and almonds in flavour and have around 20% fat content (about 67% of which is monounsaturated), 14% protein, ~60% water and various minerals. The grubs, crushed and made into a paste, were used to treat burns, wounds and injuries.

<u>Fact sheet for Acacia kempeana (flora.sa.gov.au)</u> <u>Witchetty Grub | Australian Insects Website (australian-insects.com)</u>

The Arabana term for the grub is mako witjuti (with emphasis on initial syllables); mako means grub, and witjuti refers to the shrub, not the grub itself.[4] Similarly, Ngalea peoples referred to the grub as "mako wardaruka", meaning grubs of the wardaruka (Acacia ligulata) shrub.[5] The Pitjantjatjara name is "maku".<u>Witchetty grub - Wikipedia</u>

Acacia aneura (Mulga) is worth a special mention. Honeypot ants (Camponotus inflatus) associated with Acacia aneura, with single or multiple entrances. Repletes comprise 45-50% of the ant colony. The biology and aboriginal use of the honeypot ant, 'Camponotus inflatus' Lubbock, in Northern Territory, Australia | Australian Entomologist (informit.org)

A sweet exudation in *Acacia aneura*, produced by the plant after attack by a sap-sucking insect, was either sucked straight from the plant or dissolved in water to make a refreshing sweet drink. This was also eaten by early settlers who referred to it as "bush lollies".

A white, powdery substance on Mulga leaflets and small branches was utilised as a source of resin for joining tool-parts and for repairing cracks or holes in wooden bowls. The hard wood of mulga which turns dark red-brown when polished, could be turned into excellent tools such as spearthrowers, spearheads, barbs, boomerangs and digging sticks. One such tool, a small, flat shield called "mulga" by one Aboriginal tribe gave the plant its common name. <u>Acacia aneura (anpsa.org.au)</u>

*Acacia longifolia subsp sophorae* (Coast Wattle) In contrast with desert dwellers, coastal SA and TAS tribes people roasted the pods and then ate the seeds of Coast Wattle. See Bush Tucker Foods

Citrus australasica (Finger limes) used to be Microcitrus but has been reunited with Citrus. Grows

naturally in the rainforests of NE NSW and SE Qld. The fruits may be green, yellow, black, purple or red and the flesh is green, yellow or pink. These fruits, which are high in vitamin C, were eaten by Indigenous people.

#### Tasmannia species (Pepperberry)

**Tasmannia insipida** (Brush Pepperbush) The fruit ripen to purple-black. The flesh is edible and fairly tasteless, but the few black seeds are very peppery. Aboriginal people have been recorded as using them to stuff the cavity of roasting game to flavour the meat. See <u>52259 ANBG\_Friends news Mar-09.indd (friendsanbg.org.au)</u>

In Australia, the genus *Tasmannia* ranges from Tas and eastern <u>Vic</u> and NSW to SE <u>Qld</u>, and in the mountains of NE Qld. 'Tasmanian pepper' or 'mountain pepper' (*T. lanceolata*,) was the original pepperbush used by colonial Australians, and was introduced into cultivation in Cornwall, UK, to become the 'Cornish pepperleaf' associated with Cornish cuisine. It has large, peppery berries which are also high in antioxidants. The leaf and berry are used as a <u>spice</u>, typically dried. More recently, it has become popularised as bushfood condiment. It can be added to curries, cheeses, and alcoholic beverages. It is exported to Japan to flavour *wasabi*. The berries and leaves have

strong antimicrobial activity against food spoilage organisms. Safrole is the biggest limitation with using wild strains of mountain pepper, and safrole-free strains of mountain pepper have been selected for the spice trade. *Tasmannia stipitata*, Dorrigo pepper, is also sold as a spice and was the original pepperbush used in specialty native food restaurants in the 1980s. It is mainly wild-harvested and has a woody-cinnamon and peppery note in the leaves and the fruit/seed. Dorrigo pepper is safrole free and has a strong peppery flavour. Can purchase dried berries, dried whole leaves and dried ground leaves. Dorrigo Pepper Products

Tasmannia stipitata - Wikipedia,

<u>Pepperleaf – Bush food Bush Tucker Taste Australia Native Food Indigenous food aboriginal food</u> <u>Dorrigo Pepper - Dorrigo Pepper Fact Sheet</u>

**Rubus moluccanus var. trilobus (Native Raspberry)** (Formerly *Rubus hillii*). There are several native raspberries, all of which were eaten. This one is found in rainforests. The Mountain Raspberry, *Rubus gunnianus*, is found only on Tasmanian mountains, while the Small-leaf Bramble, *Rubus parvifolius*, is widespread in drier forests. NB European raspberry is *Rubus idaeus*, North American black raspberry is *Rubus occidentalis*.

Aboriginal Trail - Australian National Botanic Gardens (anbg.gov.au)

*Davidsonia jerseyana* (Davidson's plum) Aboriginal people ate the clustered fruit, which has been described as the best Australian native fruit. An example of cauliflory. Beasley (2009)

It has more antioxidants than the blueberries. It also rich in potassium, lutein (a compound important for eye health), vitamin E, folate, zinc, magnesium and calcium.

Considered the world's richest source of Vitamin C – fifty times that of oranges.

Research is being done into its preservative properties. When tested on kangaroo meat, a product made from Davidson's plum extended the shelf life of the meat by 21 days in chilled conditions.

*Persoonia pinifolia* (Geebung) see Clarke, Phillip, A. (2007) *Aboriginal people and their plants,* Rosenberg, Dural, NSW. There was also information from Bushcraft OZ but that is now defunct.

**Podocarpus elatus (Plum pine)** The seed is borne on a purple-black fleshy stalk, which was eaten. It is sweet but mucilaginous. (Guide leaflet for the *Aboriginal Trail* at the Australian National Botanic Gardens)

'The dark juicy pulp of the fruit tastes rich and sweet, but has a very resinous tasting central core, which is best avoided. In southern NSW it was esteemed by Aborigines and settlers as one of the best of wild fruits, but in QLD, where the choice of bush fruits is much wider, it was not highly regarded.' (Low)

## Hibiscus heterophyllus (Native rosella) See hibiscus.org - Hibiscus Heterophyllus

**Exocarpos cupressiformis (Native cherry)** Each small, green, hard fruit is supported on a larger, swollen, fleshy stalk. When the fleshy stalks ("fruits") are yellow, they are bitter but when they turn deep red, they are quite sweet and palatable to birds, animals and people. They make good thirst quenchers on a hot day. Discard the green seed at the tip. They were eaten raw by Aboriginal and colonial settlers. The sap was applied to snake bites. (Low, 1991)

## Carpobrotus rossii (Mallee Pigface)

*Carpobrotus rossii* is a succulent coastal groundcover plant native to southern Australia. From Shark Bay in WA, along coastal areas up as far as Fraser Island and around Tasmania. It is known by various common names, including karkalla, pig face, sea fig and beach bananas. It is a sand and soil binding plant for foreshores, embankments, coastal reserves and parks. Showy displays of bright coloured flowers.

*C.rossii* can be confused with rounded noon-flower *Disphyma crassifolium subsp. clavellatum*, which has also been erroneously called "karkalla" and "beach bananas" in the Australian native food trade. Aboriginal people eat the fruit traditionally, fresh and dried. The salty leaves were also reported to have been eaten with meat. Extracts of the plant have significant *in vitro* antioxidant, antiplatelet, and anti-inflammatory activity.

The juice from the leaves can also be used to help relieve skin burns, bites and stings, just like the aloe.

Note: Fire retardant plant as per SA Country Fire Service, contact for further information.

Carpobrotus rossii : Karkalla | Atlas of Living Australia (ala.org.au) Vivienne Hansen & John Horsfall (2016) *Noongar Bush Medicine*.

Native grasses such as *Themeda triandra* (Kangaroo grass) and *Triodia spp* (Porcupine grass). About 140 grasses were harvested by Indigenous people. Most of the flour produced form these grains is gluten free. The grains are easily harvested and do not require annual sowing. Spinifex was also used as cladding for dome shaped structures in inland Australia. The clumps of spinifex were laid so that the clod and root ball of each clump met at the crown of the house and the leaves extended down the sides.

Bruce Pascoe (2014) Dark Emu

## Lomandra longifolia (Spiny Mat Rush or Basket Grass)

Grows in the eastern states of Australia from SE SA right up to Cape York and also in Tasmania.

It is a useful food plant; the heavily scented fleshy creamy-yellow coloured flowers appear late winter to early spring and can be soaked for nectar; these are followed by yellow fruits in late spring to summer; the white leaf bases were chewed for starch and for water to quench thirst when walking. Its seeds were ground to make flour. The leaves could also be split, tied into bundles and soaked, then woven into baskets or mats and fish and eel traps. They are still used in this way.

The leaf bases were chewed for starch and water; chewed by people in danger of dehydration. Seed ground into flour or mixed with honey. Roots used to treat bites and stings from ants and hairy grubs. The plants provide shelter for small marsupials and reptiles so was a good place for indigenous people to hunt for them. Leaves of *Lomandra effusa* used to smoke bettongs from their burrows.

The leaves were, and still are, used to weave strong baskets, mats, string and fish and eel traps. Show basket.

Ngunnawal plant use : a traditional Aboriginal plant use guide for the ACT region.by Greening Australia, 2014, ACT Government.

Lomandra longifolia - Growing Native Plants (anbg.gov.au) PlantNET - FloraOnline (nsw.gov.au) Lomandra longifolia - Wikipedia

Rod Mason (2001), Aboriginal knowledge and care of the plants of the Monaro and South Coast, New South Wales [cd-rom] : preliminary report, NPWS.

Gott, Beth (2006) Plant Species used by Aborigines in South-Eastern Australia

*Melaleuca sp.* (Paperbark) From carrying and warming, cooking, wrapping babies, to cups and domestic uses, to art and spiritual practices... paperbark is versatile. The soft bark peels off from the trunk in sheets, which can be used during menstruation, during and after childbirth and for physical injury where there is bleeding. Women would birth with the baby being born onto a soft sheet of paperbark; or it might be used later for the smoking or welcoming ceremony for the infant. It also makes a good lining in a coolamon for a baby.

It is useful in cooking in ground ovens. Both bark and leaves were used in making the lining for ground ovens. Ground ovens were prepared by digging a pit about 90 cm long and 60 cm deep. Clay collected from the digging was fashioned into smooth lumps, or stones could be used. The pit was

filled with firewood and the clay lumps or stones placed on top. As the wood burned the clay lumps would dry out and become very hot. They were then removed, the pit swept out and lined with green grass or leaves, or paperbark, the food placed on the lining, more liner to cover it, then the clay lumps and an earth covering, to prevent loss of steam; the damp lining material creates the steam.

(Aboriginal cooking techniques, ANBG Education Services Wright, 2000).

#### Paperbark Tree – Native Symbols

*Xanthorrhoea sp* Generally called grass trees, Xanthorrhoeas(about 30 species) occur in all states and territories but not outside of Australia. Some form a 'trunk' from old leaf bases stacked on top of each other and stuck together by a naturally occurring resin. Globules of resin fall on the ground. A multi-purpose plant for indigenous people.

Nectar-rich flowers form on a spike, which can be up to four metres long. The nectar from the flowers was used to make a sweet drink. After flowering, the spikes were used to make spears, particularly for fishing because they were very light and would float but the lightness made them unsuited to throwing long distances. A tip section of tea tree would then be attached to the end of the spear and hardened in the fire before used for hunting.

The dried flower spikes were also used to generate fire by the hand drill friction method. For some Grass tree species, under the skirt of leaves there is a trunk-like structure formed from old leaf bases stacked on top of each other and stuck together by a naturally occurring resin, which is in liquid form when warmed, but sets hard when cooled. Globules of this resin can be collected from around the base of the tree, and it was used by Aborigines to make glue for such things as mending coolamons and attaching spear heads to the shafts.

<u>Xanthorrhoea glauca - Growing Native Plants (anbg.gov.au)</u> <u>Aboriginal Plant Use in SE Australia - Australian Plant Information (anbg.gov.au)</u> <u>Xanthorrhoea - Wikipedia</u> <u>The Grass Tree: Its Uses and Abuses (anpsa.org.au)</u> <u>Grass Trees - Bush Heritage Australia</u> <u>Xanthorrhoea- The Story of the Black Boy Plant | Florist with Flowers</u>

#### Casuarina and Allocasuarina (Sheoaks)

Sometimes called whistling trees, because the rustling foliage sings people to sleep. It was a calming place to sit. Babies were placed under the Sheoak to help induce sleep (it was a safe place because snakes did not like to slither across the needles). Many indigenous tribes associated these trees with spirits of the dead; the sounds of the leaves rustling sounded like the spirits speaking. In the lower Murray region, old people often chose a large sheoak for a burial platform across its lower horizontal branches to hold the smoked bodies of the deceased.

Noongar women of WA often gave birth under the sheoak because of the softness of the needles which were also used for bedding in shelters, covered with kangaroo skins. Needles could be chewed to quench thirst.

In the Canberra region, people ate the leaves and young cones of *Allocasuarina verticellata*. The Ngarrindjeri people of the lower Murray River (Coorong) made shields, clubs and boomerangs from the hard wood.

*Allocasuarina decaisneana* (Desert Oak)The tree was useful to Indigenous Australian peoples who used it as a source of water. Water can be collected from tree hollows but surface roots could also be

broken off in sections to provide potable water by draining the root when held vertically or by directly sucking the water out. The Aborigines also used the hard wood of the trees for firewood and for making weapons and other implements, and they used the seeds for food.

Philip A Clarke (2014) Discovering Aboriginal Plant Uses.
Vivienne Hansen & John Horsfall (2016) Noongar Bush Medicine.
<u>Aboriginal Plant Use in SE Australia - Australian Plant Information (anbg.gov.au)</u>
<u>Review of how indigenous people managed for water in desert regions of Australia (rswa.org.au)</u>

## Clerodendrum floribundum (Lolly bush) Medicinal use Collected at Endeavour River

Although the fruits are not edible, Aborigines ate the roots, which taste like parsnip. They treated sore throats, rashes and sores with a decoction from this plant. In modern times, pharmacologists have investigated the properties of another in this genus which was also collected, *Clerodendrum inerme*. These studies have found compounds responsible for the anti-inflammatory and analgesic properties of its leaves.

Clerodendrum is a genus of about 500 species worldwide. Many species of this genus are used in the preparation of folklore medicines for the treatment of various life-threatening diseases. More than 11 Clerodendrum species have been very well studied for their chemical constituents.

Beasley, John (2009) Plants of Cape York, the compact guide.

Jin-Hui Wang, Fei Luan, Xiang-Dong He, Yong Wang, Mao-Xing Li (2018) Traditional uses and pharmacological properties of Clerodendrum phytochemicals, *J. of Traditional & Complementary Medicine*, **8**(1): 24-38.

Williams, Cheryll J. (2013) Medicinal Plants in Australia vol 4: An Antipodean Apothecary. Aches and pains, headaches, skin complaints, infected or inflamed eyes, diarrhoea, bronchial congestion. Xanthin oxidase inhibitory activity (Sweeney, 2001).

There are several studies on *Clerodendrum inerme*, another Australian native in this genus. For instance

- Srisook K, Srisook E, Nachaiyo W, Chan-In M, Thongbai J, Wongyoo K, Chawsuanthong S, Wannasri K, Intasuwan S, Watcharanawee K. (2015) *J. Ethnopharmacol.* 2015 May 13;165:94-102. doi: 10.1016/j.jep.2015.02.043. Epub 2015 Feb 26. Our results found acacetin (1), hispidulin (2) and diosmetin (3), were responsible for the anti-inflammatory properties of *C. inerme* leaves. We provide scientific evidence to support the usefulness of *C. inerme* leaves in traditional medicine for the treatment of inflammation-related diseases.
- Yankanchi, S.R., Koli, S.A. (2010) Anti-inflammatory and analgesic activity of methanol extract of Clerodendrum inerme, J.Pharm. Sci & Res. Vol 2(11) 782:785. The found that the anti-inflammatory and analgesic activity observed in the present study with methanol extract of Clerodendrum inerme could be attributed largely to its antioxidant and lysosomal membrane stabilizing effects.
- R. Vijay Amirtharaj, V. Suresh, R. Senthil Kumar (2010). Studies on Anti-Inflammatory and Analgesic Properties of Methanol Extract of Aerial Part of Clerodendrum inerme in Experimental Animal Models. Research J. Pharmacognosy and Phytochemistry; 2(5): 421-424.

## **Additional Plants**

## Acacia melanoxylon (Blackwood) Various uses

Found in high rainfall forests, in all of the eastern States. It has a very high tannin level in its bark (probable source of common name Blackwood).

The fine, hard wood can be made into clap sticks, spear throwers and shields. Fine woodworking material and used for the tomb of the Unknown soldier.

In Victoria the bark was soaked in hot water and rubbed on sore joints to treat rheumatism.

The leaves have been used as soap, and when mixed with water can make a fish poison.

The inner bark makes good fishing lines and string for spears and fishing nets.

The wattle seed is edible. (much acacia seed is not)

Blossom was hung in dwellings to promote sleep.

<u>Microsoft Word - aboriginal\_use\_wattles\_by\_nm.doc (anbg.gov.au)</u> Norman Morrison (2000) article <u>Aboriginal Trail - Australian National Botanic Gardens (anbg.gov.au)</u> Beth Gott article

*Cordyline petiolaris* (broad leaf palm lily) Neither palm nor lily, actually member of Asparagus family. The red berries are edible when very ripe – but the young shoots and stems are the tasty bits!

The leaves were used for wrapping food for cooking and transporting.

## Dubosia myoporoides (Corkwood or Pitcheri) medicinal

Found most the length of the east coast. Plant contains high levels of alkaloids. With some commercial harvest for use in treatments for sea sickness and stomach ulcers (hyoscine/scopolmine)

Used by indigenous peoples as a narcotic. Sometimes dried leaves would be smoked and used as an anaesthetic. Usually it would be mixed with other plants containing nicotine and made into a narcotic 'chew'. The addition of other substances – such as charcoal of acacia impacted the amount of narcotic released. The initial effect is as a stimulant followed by heaviness and sleep.

Norman Morrison (2000) Aboriginal Use of Wattles see <u>Microsoft Word - aboriginal\_use\_wattles\_by\_nm.doc (anbg.gov.au)</u>

Westhorpe RN, Ball C. Pituri and other Aboriginal medicines for pain relief. Anaesthesia and Intensive Care. 2011;39(1):3-3. doi:10.1177/0310057X1103900101 (article available for download from SAGE journals)

## Davidsonia jerseyana (Davidson's plum)

It has more antioxidants than the blueberries. It also rich in potassium, lutein (a compound important for eye health), vitamin E, folate, zinc, magnesium and calcium.

Considered the world's richest source of Vitamin C – fifty times that of oranges.

Research is being done into its preservative properties. When tested on kangaroo meat, a product made from Davidson's plum (*Davidsonia pruriens*) extended the shelf life of the meat by 21 days in chilled conditions.

Y Sultanbawa, A Cusack, M Chaliha, M Currie, P Burt, K Matkinyidze, "Shelf Life Extension of Kangaroo Meat Using Natural Antimicrobials" for Queensland Alliance for Agriculture and Food Innovation (QAAFI), Uni of Qld

<u>Microsoft PowerPoint - Poster kangaroo workshop final to colourworks [Compatibility Mode]</u> (agriculture.gov.au)

## Geijera parviflora (wilga)

Used in combination with other plants to give a mild 'drunkenness' or drowsiness. Often chewed by older people for teeth pain. Sometimes pieces placed within a tooth cavity. Older indigenous people's teeth were often worn down from chewing hard substances.

Leaves ground into a lotion and applied externally for pain relief.

Chemical composition varies widely – an example of individual plant variability .

Linda K. Banbury, Qingyao Shou, Dane E. Renshaw, Eleanore H. Lambley, Hans J. Griesser, Htwe Mon, Hans Wohlmuth (2015) "Compounds from Geijera parviflora with prostaglandin E2 inhibitory activity may explain its traditional use for pain relief", *Journal of Ethnopharmacology*, Volume 163.

Nicholas J. Sadgrove and Graham L. Jones (2013) Characterization and Bioactivity of Essential Oils from *Geijera parviflora* (Rutaceae): A Native Bush Medicine from Australia, *Natural Product Communications* Vol 8(6), 747-751.

<u>Characterization and Bioactivity of Essential Oils from Geijera parviflora (Rutaceae): A Native Bush</u> <u>Medicine from Australia - Nicholas J. Sadgrove, Graham L. Jones, 2013 (sagepub.com)</u>

#### Eucalyptus macrorhyncha (red stringy bark)

Found from South. Aus to Victoria up to northern NSW(great diving range)

The kino of this species is a strong astringent . Leaves are a good source of rutin (vitamin P) (6-24%). The leaves would be ground and boiled to release the rutin then evaporated to leave the powder. Rutin is known to strengthen small blood vessels and capillaries. It also helps the body to produce collagen and use Vitamin C.

Used by indigenous peoples for colds, wound treatment, nose bleeds and damaged tissues.

E.V. Lassak & T. McCarthy (2001) Australian medicinal plants, Sydney, New Holland

#### Eremophila longifolia (Long-leaved Emu Bush/Berrigan)

Emu bushes belong to Eremophila, one of the largest genera in Australia with 215 species.

Has a sacred status for many indigenous people in Central Australia. Used during many rituals and ceremonies to decorate pierced nostrils, armbands and headbands.

When a baby is born, branches of foliage are thrown into the fire to produce fumes to "smoke" the baby and mother. This practice is said to make the baby strong and help the mother stop bleeding after the birth and to give her a good milk supply for the baby. An infusion of leaves used for colds and infections.

Scientific research has supported its use as an anti-bacterial, anti-fungal and antioxidant substance.

Branches a preferred source for shelters as the leaves stayed attached.

Extract below from 'Fire in Ceremony ' page on the Indigenous Knowledge Institute , University of Melbourne. Scientific articles cited. <u>Fire in ceremony (unimelb.edu.au)</u>

The practice of smoking to cleanse a house or person is used in many cultures around the world, and often involves burning herbs, special wood and bark, such as white sage among native Americans. There is some evidence that traditional use of burning white sage can significantly reduce harmful bacteria present in the air. Similarly, in Aboriginal medical practices, emu bush (Eremophila longifolia) is highly prized for use in smoking, and scientific research has supported its use as an anti-bacterial, antifungal and antioxidant substance. The leaves of the emu bush are placed on hot embers to produce wet steamy smoke, which kills bacterial or fungal pathogens. This can be of benefit for someone who is sick, to prevent spread of sickness, and for use in childbirth.