

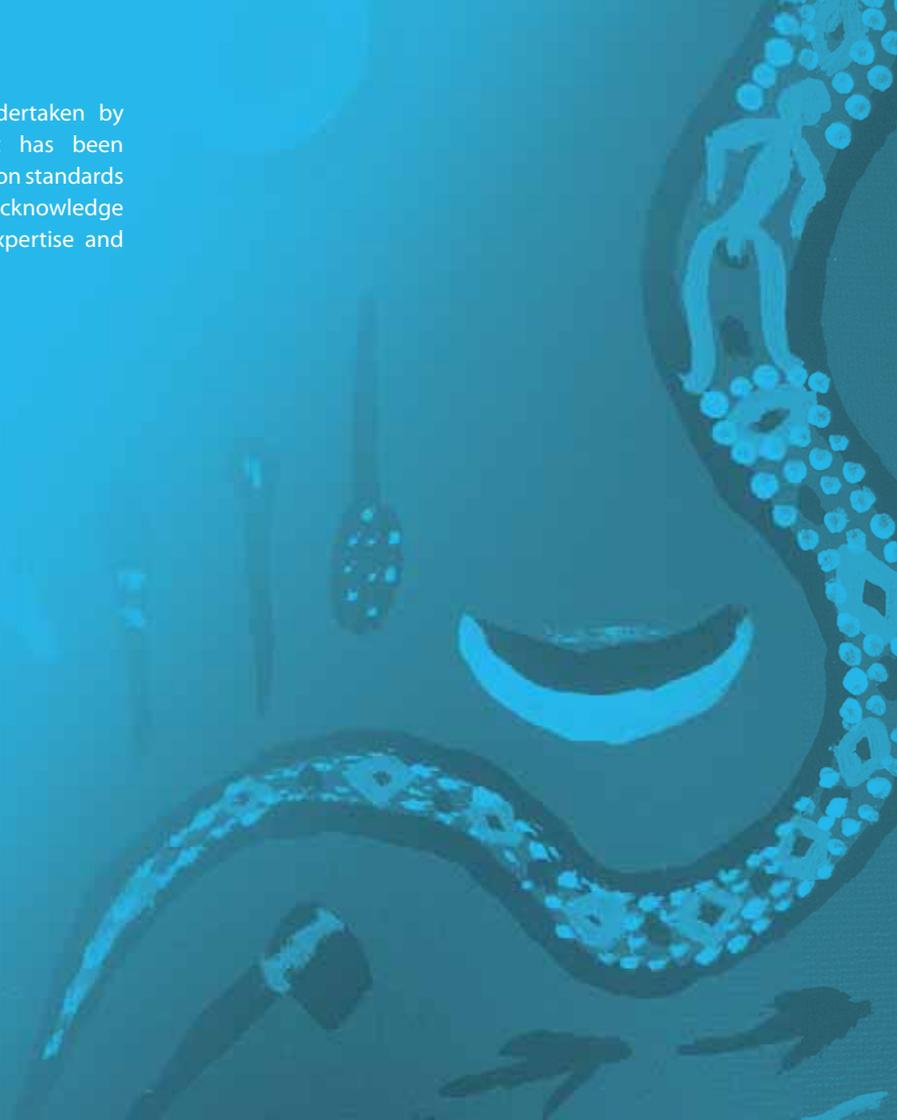
Western Local Land Services

Ecological Cultural Knowledge - Paakantji (Barkindji) and Maraura (Gerard)

Knowledge shared by the Paakantji and Maraura people (Lake Victoria)



This booklet was the product of an earlier project undertaken by a legacy agency of Western Local Land Services. It has been re-branded in line with Western Local Land Services publication standards and guidelines. Western Local Land Services would like to acknowledge and thank all who contributed their knowledge, time, expertise and financial support to the original project.



Ecological Cultural Knowledge – Paakantji & Maraura

Foreword

Western Local Land Services is working to achieve positive natural resource and cultural heritage outcomes in the region and to create greater understanding and knowledge of Aboriginal cultural heritage values within the overall community.

Western Local Land Services is committed to working with the Aboriginal communities of the region to improve their involvement in natural resource management, to protect areas of cultural heritage significance, and to encourage learning and sharing of ecological cultural knowledge with current and future generations.

Aboriginal people have a cultural, spiritual and social connection to the land and have an important role in environmental management. Western Local Land Services has a strong interest in supporting Aboriginal groups in the collection of information that can accurately, comprehensively and meaningfully define Aboriginal cultural links to the landscape.

Aboriginal people possess special knowledge, rights and interests in relation to the way that natural resources are managed and used. It is important that Aboriginal cultural knowledge of natural resources is only used in accordance with the wishes of the custodian of that information.

The project which led to the development of this booklet was undertaken in consultation with members of the Barkindji Elders Council as representatives of the Paakantji (Barkindji) and Maraura (Gerard) Aboriginal communities in the Lake Victoria area, in far western New South Wales.

The content of this booklet provides Traditional Owners and Aboriginal people with a permanent record of traditional knowledge of the use of plants and the cultural value of vegetation for the Lake Victoria area. It will help pass on knowledge from one generation to the next and will also help Western Local Land Services to protect and enhance local vegetation and biodiversity of cultural significance.

I invite you to read this valuable resource and support Aboriginal communities to regain and strengthen access to their past as a pathway to revitalising their culture.

Magnus Aitken
Chair
Western Local Land Services



Beth Gott describing common Aboriginal uses of Common Reed (Phragmites australis).

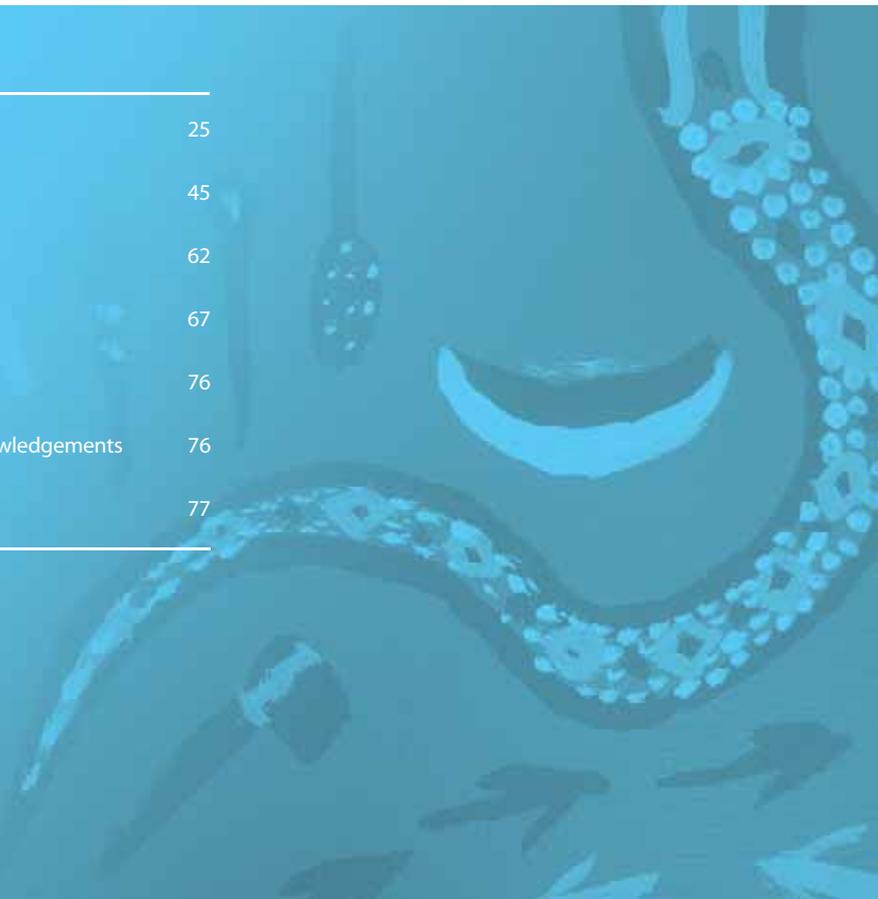
Ecological Cultural Knowledge – Paakantji & Maraura

Contents

Acknowledgements	1	Shrubs	25
Introduction	2	Forbs/herbs/ferns	45
Map of cultural study area	4	Climbers	62
Oral histories	5	Reeds/grasses	67
Symbol descriptions	8	References	76
Trees	9	Photograph acknowledgements	76
Small trees	17	Index	77

Aboriginal People

Please note that this report may contain photographs and references to some Aboriginal Elders, Traditional Owners and knowledge holders who are now deceased.



Ecological Cultural Knowledge – Paakantji & Maraura

Acknowledgements

Western Local Land Services wishes to acknowledge the Barkindji Elders Council and the Paakantji (Barkindji) and Maraura Elders and Traditional Owners who participated in the project which provided the basis for the content of this booklet. Acknowledgement is also extended to the Australian Government's National Landcare Programme for providing funding for this project.

Western Local Land Services recognises the spiritual connection that Paakantji (Barkindji) and Maraura people have to country and the importance that this and other similar research has in demonstrating their connection to country and their success in retaining a living and vibrant Aboriginal culture within Australia.

Western Local Land Services particularly thanks the Maraura and Paakantji (Barkindji) Elders and partners who participated in the community consultation workshops in 2009: Lottie Williams, Ray and Lottie Lawson, Noel Johnson, May Johnson, Brian Carter, Tim Abdulla, Kingsley Abdulla, Gary Abdulla, Sam Koolmatrjie, Evelyn Crawford, Dawn Smith, Alf and Christine Kelly, Roland Smith, Elsie Coombes and Cora Lawson.

Thanks and acknowledgment is also extended to the managers of Noola, Old Warrakoo and to Nampoo Station and Kulcurna Station for catering and hospitality.

For a complete list of reference material, please refer to the references section in the back of this booklet.



*Workshop 1 Participants
(L-R): Brian Carter, Noel Johnson, Ray Lawson, Joanne Robinson (LMD CMA), Beth Gott, Kingsley Abdulla, Rosemary Lott, Paul Marshall, Sam Koolmatrjie, Lottie Williams, Gary Abdulla, May Johnson, Paul Cohrs, Tim Abdulla and Kerryn Hart (LMD CMA).*

Ecological Cultural Knowledge – Paakantji & Maraura

Introduction

Western Local Land Services commissioned the production of this booklet as part of a series of Ecological Cultural Knowledge publications recording the oral histories, traditional language and cultural uses of native and some introduced plant species in the region.

This publication is based on an earlier project undertaken by the Lower Murray Darling Catchment Management Authority (LMD CMA) with the support of the Barkindji Elders Council, comprising Maraura and Paakantji (Barkindji) Elders, and Traditional Owners. That project identified and collated Paakantji (Barkindji) and Maraura (Gerard) names and traditional uses for plants in the Lake Victoria area of southern far-western New South Wales.

The project study area was west of the Great Darling River Anabranch (see map on page 4) and focuses on the Lake Victoria-Frenchmans Creek area. Broader Paakantji (Barkindji) knowledge has also been included where relevant.

The project aims were to increase the cultural and biodiversity knowledge of Traditional Owners and other Aboriginal people, and assist the wider Local Land Services Western Region community to increase their knowledge and understanding.

The Paakantji and Maraura people are part of the same language group. Maraura are the group west of the Darling River near the Murray River junction, and the Paakantji groups are from the area northeast of this on the Darling River.

The names Paakantji, Paakantyi and Barkindji are often used as alternative spelling and pronounced the same way. Similarly, Maraura is sometimes written as Marawara. Some Maraura people now live at Gerard, therefore the project report title includes this name. In this booklet, and at the request of the project participants, the names Paakantji and Maraura are used, except when referring to the Barkindji Elders Council.

Linguistically, Paakantji has two separate meanings: 1) the whole language group from Yelta to the Queensland border near Hungerford; and 2) the 'Southern Paakantji' who are between Pooncarie and Wilcannia. In this booklet, the phrase 'Southern Paakantji' is used in reference to the Southern Paakantji and Maraura in general. The Maraura and Southern Paakantji dialects were very similar and therefore plant names and uses were often very similar.

This booklet includes Paakantji names for plants and plant parts; describes the plants which occur in the Lake Victoria area; and indicates the types of traditional use by Southern Paakantji such as food, weapons and medicine.

The plant uses given in this report are a combination of those provided by the Aboriginal Elders involved in the original project and some selected published information such as written

descriptions by early explorers and settlers. Some information regarded as culturally sensitive by the Elders has not been included in this booklet.

The plants identified in the report from the original project, as well as the oral history and project information have been summarised into this format with clear indicators as to categories of life form, traditional language plant names and traditional uses. Additional information regarding plant descriptions, habitat and distribution has been added to the list of plants that were selected by the Elders and included in the previous publication.

Permission has been granted by the participating Elders for publication of this material. The plants included are not intended to form a definitive list, however all plants included in this booklet were agreed at the project workshops as culturally significant to Paakantji and Maraura people.

According to the original report, traditional plant use is related to human needs for food and travel; social and cultural activities and ceremonies. It is also linked with the ecology of the landscape

– the location, distribution and ecology of plants and vegetation, their capacity to recover after use, and the location of water bodies.

Western Local Land Services is committed to the engagement of Aboriginal people in its natural resource management processes and appreciates the opportunity to collaborate with the Paakantji and Maraura people in the production of this valuable educational resource. This booklet will assist Western Local Land Services to protect the cultural heritage values of culturally significant vegetation in this region.



*Workshop participants discussing Leafless Ballart (*Exocarpos strictus*) bearing fruit, growing beneath a River Red Gum (*Eucalyptus camaldulensis*) near the Murray River.*



*Workshop participants discussing River Cooba (*Acacia stenophylla*).*

MAP OF CULTURAL STUDY AREA

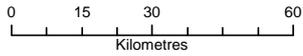


Map of Cultural Study Area: Paakantyi and Maraura

Legend

- Main Roads
- Towns
- Major Rivers
- ▨ Study area
- National Parks Estate
- Western LLS Region

4



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Ecological Cultural Knowledge – Paakantji & Maraura

Oral histories

Aboriginal people of the Paakantji language group occupied most of the Darling River region at the time of first contact with Europeans. This language group comprised people who spoke a number of sub-dialects and shared a kinship system which followed a matriarchal line with common social customs. The groups who lived near the Murray-Darling junction were:

- Maraura, who occupied the Lower Darling and along the Murray River to Lake Victoria;
- Southern Paakantji (Barkindji) along the Darling River;
- Barindji (Parrintyi) to the east;
- Thangkaali (Danggali) to the north-west;
- Kureinji to the east of the Maraura and south of the Barindji;
- Yeri-Yeri on the south side of the Murray River around Mildura and Merbein and downstream; and
- Letji-Letji (Latji Latji) in the western part of the Kulkynie and to the southwest.

Paakantji comes from the work Paaka 'river' and tji 'belonging to'. So Paakantji means people of the river. The reports of the early explorers Sturt and Mitchell indicate that the resources for

Paakantji inhabitants were rich. Archaeological evidence suggests that prior to European settlement, the Murray Darling region was one of the most densely populated parts of Australia. The population density of the various Paakantji sub-groups seems to have been related to the reliability of water resources. On this basis, the Maraura lands were some of the best in the region.

Away from the rivers, the Danggali and the Parrintyi (Barindji) needed to find resources from a larger area. In particularly hard times, the Parrintyi would move to the river, possibly by agreement with the Paakantji, and the resources would be shared.

The Paaka (river) people who lived along the river in the Red Gum and Black Box woodlands had access to different resources from the Parri (scrub) people who lived in the dry scrub away from the river. Each had an intimate knowledge of the landscape, well developed methods for managing plant resources, and survival techniques for when the times turned harsh.

Lake Victoria was traditionally one of a half dozen places in the Paakantji lands where hundreds of Aboriginal people gathered for large ceremonies, feasting and dancing, due to the seasonal

availability of ample food resources. Lake Victoria and the Rufus River are also highly significant for cultural, spiritual and archaeological reasons.

The Paakantji traded goods across wide distances, therefore the junction of the Darling and Murray Rivers was an important meeting place for trading with tribal groups from other areas. The Maraura and Paakantji traded their highly-prized twine – either made up into nets or as plain twine – for equally prized articles such as greenstone axes from the Mt. William quarries in the far south of Victoria. Likewise their light hunting spears made from water reeds (*Phragmites*) were exchanged for stone slabs for grinding seeds and tubers. They also traded possum skins for the popular narcotic Pituri (*Duboisia hopwoodii*) which came down from south west Queensland.

Plants provided many of the necessities of life for the Paakantji. As well as food, plants supplied nets, string, shelter and medicine. Plants also had spiritual, cultural and social uses. Aboriginal people also managed their food resources, for example, fire was commonly used to encourage new growth; and traditionally, stones and stone implements helped them to harvest and process plants for a range of uses.

Ecological Cultural Knowledge – Paakantji & Maraura

Paakantji and Maraura stories from the Elders

During the workshops conducted by the Lower Murray Darling Catchment Management Authority (LMD CMA) in 2009, the Paakantji and Maraura Elders who participated were asked about the traditional use of plants and other information to include in the report. The Elders who lived near Lake Victoria or whose families came from that area were asked to tell their stories. Oral histories have come from: May Johnson, Christine Kelly and Cora Lawson who spent part of their childhood on properties near Lake Victoria; and Jim Abdulla who is of Maraura origin. Their stories are summarised below.

May Johnson told of how her father and grandfather travelled to work on Nulla Station and how her father also worked as a stockman on Avoca Station. May recalled that when she was young her grandmother and grandfather knew a lot about plants and animals and she would sit and listen. May recounted: "Grannie was a horse rider and could hunt kangaroos and emus,

and used to take me places to show me things." May remembers that her mother also helped the "wild blacks" who travelled between Lake Victoria and Pooncarie. She also commented that Lake Victoria and its sand bars on the shores have changed a lot during her lifetime. May has 10 children and would like her children and grandchildren to learn more traditional ways.

Cora Lawson and Christine Kelly are sisters whose parents and grandparents lived near Lake Victoria. They spent their early childhood on Nulla Station in the 1940s and 1950s. They explained that their mother was from Balranald. In 1948-1950 the Lake Victoria property was divided up and her family moved to soldier settlement blocks. Christine married Alf Kelly in 1960. Both girls used to return to camp at Lake Victoria with their family for holidays. Christine told how as kids they each had their 'own trees', and of how she learnt about traditional uses of plants. She has shown her grandchildren some of



May Johnson holding Marsh Club-rush (Bolboschoenus medianus).



Tim Abdulla and Rosemany Lott.

the plants and how to use them.

Jim Abdulla, whose sons Kingsley and Gary Abdulla, along with other family members participated in the project workshops, related stories of his Maraura family. He told of how his great grandparents ran away from Lake Victoria after the Rufus River massacre and that his parents and grandparents “didn’t tell the children about the massacre, and if the kids asked, there was no answer”. But Jim recalled that as a child, he sometimes overheard the grandparents talking about it. His mother is from Kingston on the Murray but is of Maraura origin. Jim said that he learnt about plants and catching fish from his grandfather Timmy Disher (his mother’s father) and his aunts and uncles when they went ‘up river’ to Red Banks and Gerard. They would go hunting, walking and camping along the river near Gerard and the women would gather plant foods. Jim remembers the river being clear in those days “you could see fish and turtles, and sit on a log and look down into the water”.



*Rosemary Lott, Gary Abdulla and Ray Lawson discussing Bitter Quandong (*Santalum murrayanum*).*



*Lottie Williams with Ruby Saltbush twig (*Enchylaena tomentosa*).*

Ecological Cultural Knowledge – Paakantji & Maraura

Life form



Trees



Small Trees



Shrubs



Forb / Herb / Fern



Climbers



Reed / Grass

Traditional uses groups



Arts / Craft



Ceremonial



Fibre



Fire



Food



Host Plants



Gums / Resins



Medicinal



Shelter



Tools / Hunting



Water

Descriptions of cultural uses of plants are direct quotes from the Paakantji and Maraura Elders involved in this project and are also sourced from historical text.



Ecological Cultural Knowledge -
Paakantji & Maraura
Tree Section





Maapu



Common name: River Cooba,
Eumong

Paakantji name: Maapu

Scientific name: *Acacia stenophylla*

The tough pods of maapu were roasted in the fire, and the seeds picked out to eat (Gott 2008). Maapu is the name for a weeping wattle, this could be River Cooba or Acacia ligulata (Sandhill Wattle).

Description: Long drooping leaves with many parallel veins and small branches. Medium straggly tree to 10m high, common along the edge of rivers. Leaves 15-40cm or more long, 3-6mm wide, slightly curved, thick, rigid. Flowers pale-yellow, in globular heads 6-9mm in diameter. Pods 10-20cm long, to 10mm wide, leathery, thick. Flowering occurs mainly during summer-early autumn. The pods look like a string of beads.

Habitat: Occurs on heavy clay soils in river red gum communities along river and creek banks and swamp margins. Also found in mitchell grass, black box, bumble box, coolibah and belah communities, usually in close proximity to a river or creek channel.

Distribution: Found throughout New South Wales, along rivers and creeks (permanent or ephemeral) in ribbon-like stands.

Pinpa



Common name: Cypress Pine, White Cypress Pine, Murray Pine
Paakantji name: Pinpa
Scientific name: *Callitris glaucophylla*, *Callitris gracilis* subsp. *murrayensis*

The stems give out resin when wounded and the seeds are surrounded by resin in the cone. The resin is used for glue, such as to cement the head of reed spears. Pinpa wood is also used for woomeras, canoe poles, fire making and bark for torches (Gott

et al. 2005). It is used for fish spears because it floats (Bennett 1834; Hercus 1982).

Description: Tree with a single trunk to about 20m tall. *Callitris glaucophylla* leaves are aromatic, with bluish-grey foliage appearing jointed and needle-like. *Callitris gracilis* subsp. *murrayensis* leaves are aromatic with olive green to bluish grey foliage which is jointed and needle-like. The fruit of both is a woody cone about 20-25mm in diameter, remaining on the tree several years. Flowering occurs in spring-summer.

Habitat: *Callitris glaucophylla* is found on coarse-textured red and brown earths and occasionally on silty soils associated with streams in the eastern part of New South Wales. *Callitris gracilis* subsp. *murrayensis* occurs on sandy soils particularly on sandy ridges in almost pure stands.

Distribution: White Cypress-pine is widely distributed throughout western New South Wales, while Murray Pine is more common in the southern riverine areas.





Karlu



Common name: Belah, Black Oak
Paakantji name: Karlu
Scientific name: *Casuarina pauper*

Karlu provides very good firewood, especially for cooking, as it burns for a long time. Its wood was used for spears and parts of the tree may have been used for medicine.

Description: Trees have needle-like soft stems with the leaves reduced to 9-12 small pointed scales at intervals along the stems. Tree to about 15m high, with slender branchlets about 1–2mm thick, striated, jointed. Bark is dark grey, finely fissured in a regular pattern of squares. Fruits form an oblong woody cone about 20mm long, with several rows of prominent protruding valves. Flowering usually occurs summer-autumn.

Habitat: Belah is usually found on sandy rises with *Callitris* species. Occurs on sandy red earths, sandplains, floodplains and foothills. May be found as individuals or in dense stands.

Distribution: Widespread in western New South Wales.

Parnara, Kamuru



Common name: River Red Gum

Paakantji name: Parnara,
Kamuru

Scientific name: *Eucalyptus
camaldulensis*

The bark is used for containers and canoes, and the wood for clubs. The seeds are ground for food and the flowers soaked in water for drink. Square pieces of bark were cut for drying possum skins. The bark and gum have medicinal uses.

Some trees were marked with a blaze to show landmarks. Plants such as River Red Gum are host to a range of other traditional food sources such as lerps, possum bread and bardi grubs.

Description: Medium-sized to large tree, 25-40m high. Bark dark, rough and persistent on the lower trunk, smooth elsewhere. Leaves alternate, 12-22cm long, 8-15mm wide, thin, drooping, green or blue-green. Flowers cream coloured, in clusters of 5-10. Buds 6-10mm long, 4-5mm wide, conical cap. Fruit hemispherical to top-

shaped, 7-8mm wide, with sharply triangular protruding valves. The flower buds have little points on the top.

Habitat: Most extensive on grey heavy clay soils along riverbanks and on floodplains subject to frequent or periodic flooding.

Distribution: Widespread in western New South Wales along the Murray and Darling Rivers and watercourses.





Kurkuru, Kurkur(u)



Common name: Black Box
Paakantji name: Kurkuru,
Kurkur(u)
Scientific name: *Eucalyptus
ligniflorens*

The bark is thick and was used for burials. The wood is very hard and used for implements. The gum (sap) was used to cement kangaroo teeth to make a fish hook (Kirby 1894 in Gott 2008). The Paakantji name for a box tree with thick bark is Pikiri.

Description: Medium-sized tree with hard, dark, somewhat furrowed bark. Grows to 20m high, with a large spreading crown and drooping branches. Leaves alternate, 6-12cm long, 1.5-2.7cm wide, thick, dull-green or grey. Flowers are off-white, in clusters of 3-7. Buds 5mm long, 3-4mm wide, the cap hemispherical. Fruit hemispherical, 5mm in diameter, the valves enclosed. Flowering occurs in spring-summer.

Habitat: Found in periodically flooded alluvial plains and along dry lake margins, either with river red gum and coolibah communities, or in stands of its own species.

Distribution: Occurs throughout western New South Wales. It is a very common tree in the landscape on floodplains.

Kaarima



Common name: Mallee
Paakantji name: Kaarima
Scientific name: *Eucalyptus*
species

Big old mallee roots are good for water. Some deep roots descend towards the water-table, but many other roots grow out horizontally not more than 0.5m below the surface, covering a wide area. These roots are able to take advantage of small showers of rain which do not penetrate deep into the soil, and they store large amounts of water. In

some areas, the horizontal mallee roots were dug up and drained for drinking water. They could be dug up, cut into lengths, and drained into a dish (Cairns 1858). A 'Weeah' mallee was one whose vigorous growth indicated that it was a good water source, and could belong to any of several species. Yunga is the sap from tree roots. Seed from some eucalypts can be ground to make flour and is called Kantu-ngara.

Description: Mallee trees in the project area are multi-stemmed from ground level, usually less

than 10m in height. Leaves grow at the end of branchlets. Leaves are alternate and waxy or glossy green. Flowers are generally yellow, cream or white. Trees have a large underground root-stock or mallee root.

Habitat: Grow in arid or otherwise stressed areas, on red sands.

Distribution: Occur throughout western New South Wales, growing as communities comprising various species of mallee.





Sugarwood, False Sandalwood (Paakantji name not identified)



Common name: Sugarwood,
False Sandalwood

Scientific name: *Myoporum
platycarpum*

Although its use is not currently known by Southern Paakantji, it is likely to have been used for resin and for wood for fires, shields and woomeras.

Description: Tree has rough bark, leaves with small teeth on their upper part, and small white flowers. Tree to about 10m tall, bark rough, fissured and divided into segments. Leaves lance-shaped, 3-6cm long, 4-7mm wide, tipped with a stiff point, fine teeth on both sides near tip, foliage often sticky. Flowers white, in groups of 4-8 at base of leaves, bell-shaped and 4-6 lobed, 6-8mm long, often yellow inside. Fruit an almost dry berry about 6mm long. Flowering occurs in late winter-early summer.

Habitat: It is most abundant in mallee and belah-rosewood communities, but also occurs in woodlands on red and red brown earths and solonised brown soils.

Distribution: Widespread across the Western Division of New South Wales particularly in the south.



Ecological Cultural Knowledge -
Paakantji & Maraura
Small Tree Section





Malka



Common name: Mulga
Paakantji name: Malka
Scientific name: *Acacia aneura*

The galls on Mulga are called mulga apple or mulga food. The Paakantji name for this is Malka-manu. The seed and the galls were eaten (Gott et al. 2005). The wood is hard and used for spears, shields and digging sticks. The wood is poisonous so mulga spears are good for hunting. Mulga is used for making kutyuru, a throwing stick with

a knob or widened head on one end, used for a favourite game of the same name. It is the same as the Victorian witj-witj. The stick travels fast like a 'bouncing kangaroo'.

Description: Small shrub to 8m high, with the branches ascending or horizontal. Leaves variable, 3-7cm long, 1-2.5mm wide, narrow-linear in shape. Flowers bright yellow, in stalked spikes 15-30mm long. Pods 20-35mm long, 5-14mm wide, flat or oblong.

Habitat: Generally grows in clumps, forming an open woodland. Mostly grows on sandplains, dunes, red earths and on mountain ranges with stony, thin soils.

Distribution: Widespread throughout western New South Wales.

Umbrella Mulga (Paakantji name not identified)



Common name: Umbrella Mulga
Scientific name: *Acacia brachystachya*

Along the Darling River, acacia and grass seeds were used for food and for making into flour. The seed of this species was probably ground into a paste (Johnston and Cleland 1943).

Description: Shrub or small tree to 5m height, with a dense umbrella-like canopy. The leaves are 5-18cm long and quite narrow (1-3mm) and often hooked at the tip. Flowering occurs almost any time of year with suitable conditions, and the flowers are bright yellow in cylindrical spikes. The trees grow as scattered individuals or in local groups. The pods of Umbrella Mulga are 2-8cm long and 6-8mm wide.

Habitat: Common in mulga and heath, growing on sandhills and rocky ridges.

Distribution: Found throughout Western New South Wales.





Panpa, Thulkuru, Thurpa



Common name: Western Rosewood
Paakantji name: Panpa, Thulkuru, Thurpa
Scientific name: *Alectryon oleifolius*

The red part of the seed is eaten. Western Rosewood is called Panpa in Southern Paakantji, and Thulkuru or Thurpa in Pantyikali, a dialect of Paakantji. Other names could be Pura, Puraya meaning cabbage bush or Western Rosewood.

Description: Small to medium-sized tree to 9m high, with deeply fissured bark. Narrow, stiff grey-green leaves, 3.5-14cm long, 6-12mm wide with prominent veins. Flowers are cream, small and inconspicuous. The green 2-3 lobed fruit, about 6mm across, opens to show a black seed with a red attachment. Flowering occurs late spring-summer.

Habitat: Most common on sandy soils containing limestone, in association with belah communities.

Distribution: Widespread in semi-arid areas of western New South Wales.

Desert Poplar, Bell-fruit Tree (Paakantji name not identified)



Common name: Desert Poplar,
Bell-fruit Tree

Scientific name: *Codonocarpus
cotinifolius*

The tree is slender and suitable for spears.

It occurs in Paakantji country and in other areas is known for its medicinal uses.

Caution: Care should be taken as this plant may be poisonous.

Description: Tall shrub or small tree to about 10m high with smooth grey-green or sometimes pinkish bark, leaves alternate, greyish-green, lanceolate or almost orbicular, 2-5cm long, on long stalks. Flowers small in racemes at the ends of branchlets or in the leaf axils, usually the male and female flowers on different plants. Fruit bell-shaped about 10mm long with 30-50 segments around a central column. Flowering occurs in spring-summer.

Habitat: Can be found growing in arid areas, commonly after fire on deep sandy soils.

Distribution: Widespread throughout western New South Wales.





Butterbush, Native Apricot (Paakantji name not identified)



Common name: Butterbush,
Native Apricot
Scientific name: *Pittosporum
angustifolium*

The tree has a useful gum, and may have also had medicinal uses for the Paakantji.

Caution: Care should be taken as the seed may be poisonous.

Description: Shrub or small tree, to 6m high and 4m wide, drooping branches and a whitish or mottled trunk. Leaves alternate, narrow, flat, deep-green, shiny, thick, 3-10cm long, 3-10mm wide. Flowers cream or pale-yellow, fragrant, 6-12mm long. Flowering occurs in late winter-spring. The tree is very hardy and drought tolerant. The fruit capsule 10-20mm long, egg-shaped, is hard and bright orange when ripe, and opens to reveal 2-7 orange-red seeds covered in a sticky pulp.

Habitat: Grows in woodland and mallee communities, is widespread on sandy soils in the arid zone.

Distribution: Found throughout western New South Wales, usually as scattered trees but sometimes in small thickets.

Karpuka, Pintyinya



Common name: Sweet Quandong
Paakantji name: Karpuka,
Pintyinya
Scientific name: *Santalum
acuminatum*

The fruit is eaten raw or cooked. The seed can also be eaten or ground up and used as a medicinal cream for scalp sores (Gott 2008).

Description: Drooping shrub or small tree to around 5m tall, with narrow, opposite olive-green leaves 5-7cm long, 4-10mm wide, tapering to a curved point. It is a root parasite on surrounding plants. The bark is light-brown and slightly furrowed. Flowers whitish or cream, around 2mm long, in short clusters at the ends of the branchlets. Flowering occurs in spring-summer. Fruit is round, bright red, and walnut sized (2-3cm diameter) with the remains of the flower on top. It ripens in spring. The hard stone inside the fruit

is pitted and contains an oily seed with a strong flavour of Oil of Wintergreen.

Habitat: Grows in a range of woodland communities, on sandy sites to gravelly ridges.

Distribution: Found on and west of the western slopes of the Great Dividing Range in New South Wales.





Matya Manu



Common name: Bitter Quandong
Paakantji name: Matya Manu
Scientific name: *Santalum murrayanum*

Matya Manu literally means 'food for those who dare to eat it'. Some people could eat the fruit and were admired (Hercus 1986:225). While the fruit is bitter, once cooked, it is pleasant to eat. The seed inside the stone was eaten and has a mild flavour. Necklaces and bracelets are made from the stones.

Description: Similar in appearance to the Sweet Quandong, but some of the leaves are in threes. The fruit is yellow, then red, and has a dark opening ring on the top. Shrub or small tree to about 4m tall with long pendulous branchlets. Leaves grey or silvery green, linear and lance-shaped, 25-30mm long and up to 3mm wide, tapering to a curved point. Flowers creamish, small in groups at the base of the leaves. Fruit fleshy, red or brownish-red, globular, 2-3cm wide, the stone slightly pitted. Flowering occurs in spring-early summer.

Habitat: Occurs on sands to sandy loams, and gravelly ridges in many woodland communities.

Distribution: Widespread throughout the Western Division of New South Wales.



Ecological Cultural Knowledge -
Paakantji & Maraura
Shrub Section



Pirtili



Common name: Spine Bush,
Wait-a-while
Paakantji name: Pirtili
Scientific name: *Acacia colletioides*

Along the Darling River, acacia and grass seeds were used for food and for making into flour. The seed of this species could have been used.

Description: Tangled, brambly often dome-shaped shrub to 3m tall. *Acacia colletioides* has narrow, cylindrical, rigid 'leaves' with sharp points, 1-3cm long and 2mm thick. Flowers yellow in heads 5mm in diameter occurring singly or in clusters. Pods 3cm long, 3-5mm wide, thin and flat, curved or twisted, constricted between seeds, flowering occurs mainly in spring.

Habitat: Grows in sandy red earths with limestone present, in mallee, belah and other woodlands.

Distribution: Widespread in the Western Division of New South Wales but not on riverine plains.

Sandhill Wattle (Paakantji name not identified)



Common name: Sandhill Wattle
Scientific name: *Acacia ligulata*

Along the Darling River, acacia and grass seeds were used for food and for making into flour. The seed of this species may have been ground into a paste.

Description: Bushy dome-shaped shrub 1-4m tall with spreading branches. Leaves are deep-green, 3-10cm long, and round-tipped, often with a short curved point. Flowers in spring and the pods are 5-10cm long, brittle and break easily into sections.

Habitat: Occurs predominantly on sandhills and lake lunettes in open mulga and bluebush communities. Also found in dunes in mallee communities.

Distribution: Common in Western New South Wales.





Nhampura, Kapuru



Common name: Miljee,
Umbrella Wattle

Paakantji name: Nhampura,
Kapuru

Scientific name: *Acacia oswaldii*

A willow-like tree is called Nhampura in Southern Paakantji dialect, or Kapuru (Kurnu dialect). The gum is eaten, and the seed is pounded and eaten as a raw paste. The wood is

useful for clubs and boomerangs (Johnston and Cleland 1942).

Description: Often found growing as a large shrub, and can grow into a small short-trunked tree, generally 2-3m high. It has thick many-veined 'leaves' with sharp points. Leaves are slightly curved, usually 30-45mm long, 2-8mm wide, leathery, tips pointed or rounded. Flowers are pale yellow in globular heads 4-5mm in diameter. The pods are 6-15cm long, 7-10mm

wide, hard and woody, twisted and coiled. The seeds have a yellow-orange attachment (aril) and flowering occurs in spring.

Habitat: Occurs in drier areas on a wide range of soils and in many vegetation types.

Distribution: Very widespread and evenly distributed throughout western New South Wales and north-western Victoria.

Pirtili



Common name: Nealia,
Needle Wattle
Paakantji name: Pirtili
Scientific name: *Acacia rigens*

Along the Darling River, acacia and grass seeds were used for food and for making into flour. The seed may have been used.

Description: Tall shrub to 3m high, sometimes to 5m, with a stringy or flaky bark that is sometimes sticky. Leaves upright, greyish, slender, cylindrical, 3-13cm long, about 1mm thick, many veins, ending in a point, young leaves are downy. Flowers golden-yellow, in globular heads, 6-8mm in diameter on small stalks in pairs of threes in the leaf axils. Pods 5-7cm long, 2-2.5mm wide, curved, twisted, constricted between seeds. Flowering in early spring-summer.

Habitat: Occurs on dunefields and sand plains in mallee.

Distribution: Found in the southern half of western New South Wales.





Panparla, Paalaka



Common name: Old Man Saltbush
Paakantji name: Panparla, Paalaka
Scientific name: *Atriplex nummularia*

Saltbush or 'thunder leaf' is sometimes called Pakaputa, 'leaf-white,' which is the Paakantji word for the Atriplex species. The leaf can be added when cooking meat, to add flavour.

Description: Large grey, scaly shrub, with grey, relatively large and almost circular leaves 10-25mm long with brittle woody branches, up to 2m high and 4-5m wide. Flowers in loosely branched clusters at the end of branches. Fruiting body round or fan-shaped, 5-8mm long. Flowering occurs mostly in spring-early summer.

Habitat: Grows mainly on clay soils, usually in flat or low-lying areas but found on most soil types at all levels. Sometimes grows in dense stands. Also found in mallee and most other communities.

Distribution: Occurs throughout the western plains of New South Wales.

Dark Turpentine Bush (Paakantji name not identified) and Palpu



Common name: Dark Turpentine Bush, Pale Turpentine Bush

Paakantji name: Palpu (*B. lechenaultii*)

Scientific name: *Beyeria opaca*, *Beyeria lechenaultii*

Palpu is the name for Pale Turpentine Bush and a paler leaf variant. This plant is a medicine bush for Paakantji to the north (Hercus 1982). It is not known whether the Dark Turpentine Bush found near Lake Victoria has the same qualities.

Description: Dark Turpentine Bush is a small sticky shrub with oblong leaves which are glossy above and paler and hairless beneath. It has been recorded flowering in June, also September-November. Pale Turpentine Bush is a sticky shrub to 50-150cm high. Leaves alternate, almost stalkless, oblong, blunt or rounded tip, 1-3cm long, 2-4cm wide, glossy green above, white-woolly below. Flowers without petals, each with 5 overlapping segments, separate male and female plants. Fruit an ovoid capsule 6-7cm long containing 3 seeds or fewer. Flowering is in spring.

Habitat: Both occur in mallee communities, on dunes and plains. Found growing on calcareous red earths.

Distribution: Dark Turpentine Bush occurs in the north and central western slopes and the southern regions of western New South Wales. Pale Turpentine Bush is common in the Western Division of New South Wales.





Thara



Common name: Narrow-leaf
Hopbush

Paakantji name: Thara

Scientific name: *Dodonaea viscosa*
subsp. *angustissima*

The branches were used to make shelters. The plant also has medicinal uses. Thara is also the name for Lake Victoria.

Description: Sticky shrub, narrow shiny leaves with irregular edges. A spreading shrub, usually 1-2m high, occasionally up to 5m, many stemmed. Leaves are 2-8cm long, 1-4mm wide, blunt or pointed, the upper surface glossy green. Fruit capsules have 3-4 reddish green wings to 10mm long and 14mm wide. Flowering occurs mainly in spring-summer.

Habitat: Found predominantly on deep sandy soils, particularly in areas that have been disturbed. Occurs in a wide range of vegetation types.

Distribution: Widespread in western New South Wales.

Pituri (Paakantji name not identified)



Common name: Pituri
Scientific name: *Duboisia hopwoodii*

The leaf was chewed, and placed behind the ear when not in use. Leaves were dried in hot sand, mixed with wood ash to liberate alkaloids, and chewed or absorbed by placing a wad behind the ear (Gott 2008). Pituri was widely traded by Aboriginal people. The best sort came from the far south-west corner of Queensland. It contains a strong form of nicotine, and can be poisonous

(Gott et al. 2005). Pituri is the Yandruwandha name for Duboisia.

Caution: Care should be taken as this plant can be poisonous.

Description: Shrub to about 3m high with long narrow leaves and white, bell-shaped flowers with purple stripes inside. Flowers in clusters at the ends of the branches, which are often slender and drooping. The leaves are 5-10cm long, 4-8mm wide but variable in size and shape.

Fruit a globular black berry about 5mm in diameter. Flowering occurs in late winter-summer, also autumn.

Habitat: Found on sand dunes and in sandy soils, generally in mulga and mallee communities.

Distribution: Occurs mainly in the central and south-western parts of western NSW with isolated populations in the extreme north-west.





Climbing Saltbush (Paakantji name not identified)



Common name: Climbing Saltbush
Scientific name: *Einadia nutans*

The fruit is edible, though small.

Description: Herbaceous perennial with weak trailing or climbing stems. Leaves green, hairless or almost so, on slender stalks, 5-35mm long, longer than wide, often lobed at the base. Flowers in short terminal spikes or small leafy panicles. Fruit a red or orange berry, globular or egg-shaped, 2-3mm diameter. Flowering can occur throughout most of the year, more commonly summer-autumn.

Habitat: Occurs on a wide range of soil types in most vegetation communities.

Distribution: Widespread throughout western New South Wales.

Ruby Saltbush (Paakantji name not identified)



Common name: Ruby Saltbush
Scientific name: *Enchylaena tomentosa*

The fruit can be eaten raw and is easily collected in large numbers on a sheet of bark.

Description: Low sprawling perennial shrub to about 1m high with short cylindrical, succulent hairy leaves, 6-15mm long. Small flowers occur singly in leaf axils. The fruit is round, flattened, 4-6mm, and bright red but sometimes yellow, with a small black seed. Flowering occurs throughout most of the year, but mainly in spring-early summer.

Habitat: Occurs on a wide variety of soil types in all vegetation communities.

Distribution: Common in western New South Wales.





Kalthika, KuyipaRa, Partiku



Common name: Emu Bush
Paakantji name: Kalthika
(*Eremophila maculata*),
KuyipaRa (*Eremophila maculata*),
Partiku (*Eremophila sp.*)
Scientific name: *Eremophila* species

There are many different emu bushes in the local area including Eremophila longifolia, E. glabra, E. maculata, E. oppositifolia. The first two species are

known to have been used for medicine. Kalthika and KuyipaRa are the names for Eremophila maculata. Emu Bush has medicinal properties and is used in smoking ceremonies.

Description: Shrub with simple leaves and colourful, generally tubular flowers with upper and lower lips, and fruits with a single stone.

Habitat: *Eremophila* species grow in a range of different habitats, from sandy soils to heavy clay, riverine areas through to sand dunes.

Distribution: *Eremophila* species occur widely across far western New South Wales.

Leafless Cherry, Leafless Ballart (Paakantji name not identified)



Common name: Leafless Cherry,
Leafless Ballart
Scientific name: *Exocarpos aphyllus*

The fruit can be eaten.

Description: Much branched shrub, to about 4m tall, often yellowish-green in colour, with rigid striated branches that appear leafless. Leaves reduced to small scales which are shed. Flowers minute, stalkless, in short dense spikes or clusters. Fruit is a small globular nut, 4-5mm diameter, seated on a globular berry-like, red stalk, 7-8mm diameter. Flowering occurs in winter-early summer.

Habitat: A root parasite. Occurs in woodland communities, mainly on sandy soils, also on well-drained clays.

Distribution: Widespread throughout western New South Wales.





Comb Grevillea (Paakantji name not identified)



Common name: Comb Grevillea
Scientific name: *Grevillea huegelii*

Grevillea nectar can be sucked from flowers, or the flowers steeped in water to make a drink.

The resin may have been used for attaching the tula (flint) to the end of the wooden chisel.

Description: Erect or straggling shrub, 1-2m high. Leaves blue-green or green, alternate, stiff, 25-30mm long, deeply lobed, with 3-7 segments, prickly-pointed. Flowers pale to deep crimson, silky, tubular, 15-20mm long, in short clusters at the ends of branches. Fruit a small, dry woody capsule opening in two valves, containing two flat seeds. Flowering occurs in spring-summer.

Habitat: Occurs in mallee and belah communities.

Distribution: Found mainly as scattered plants throughout south western New South Wales.

Parnta



Common name: Silver Needlewood, Needlewood, Hooked Needlewood
Paakantji name: Parnta
Scientific name: *Hakea leucoptera*, *Hakea tephrosperma*

The roots of Silver Needlewood are dug up and drained for water and in some areas one end placed in a slow fire to capture water (Cunningham et al. 1992). Some early accounts said that the Silver Needlewood bush was first burnt, to drive all the moisture into the roots, which were then dug out (Gott 2008). The

roots have also been used to make smoking pipes (Cunningham et al. 1992). Hooked Needlewood flowers are sucked for nectar, or steeped in water. Parnta is the Paakantji name for Hakea leucoptera or possibly Senna artemisoides.

Description: Small tree to 5m high or a bushy shrub to 2m. Leaves are alternate, rigid, cylindrical to about 8cm long and 1.5mm wide, with a sharp point at the tip. *Hakea leucoptera* flowers are white, hairless, tubular at the base, the tube 5-6mm long. *Hakea tephrosperma* flowers are the same but hairy. The fruit of both are

woody capsules 20-30mm long. Both flower in late spring-summer.

Habitat: Both species usually grow on coarse textured soils and can be found with a wide range of other plants.

Distribution: Both species are found throughout the western half of New South Wales.





Australian Boxthorn (Paakantji name not identified)



Common name: Australian Boxthorn

Scientific name: *Lycium australe*

The fruit was eaten and in South Australia both fruit and seeds were eaten raw (Gott 2008).

*Caution: Australian Boxthorn should not be confused with African Boxthorn (*Lycium ferocissimum*).*

Description: Intricately branched shrub, to 1.5m high with rigid main branches and short side branches which may end in a spine. Leaves smooth, thick, fleshy, more or less egg-shaped, to 20mm long and 3mm wide, stalkless or on short stalks in clusters of 5-10. Flowers funnel-shaped, 5 lobes, 8-12mm long, creamy-white to lilac. Fruit a succulent berry 5-6mm long, dull orange-red. Flowering mainly in spring-summer.

Habitat: Grows in bladder saltbush and black bluebush communities, often in claypans or slightly saline soils. It can also be found in mallee, belah and black box communities.

Distribution: Occurs infrequently across southwest and far western New South Wales.

Wirnta



Common name: Lignum, Tangled Lignum
Paakantji name: Wirnta
Scientific name: *Muehlenbeckia florulenta*

The stem can be used to make bird snares for hunting (Kerridge 1913 MS).

Description: Hairless perennial shrub to 2.5m tall with many slender tangled striated branches and branchlets. Leaves alternate, linear or lance-shaped, rarely remaining for long on the branches. Flowers small, yellowish, solitary or in a cluster along the branchlets. Fruiting body more or less top-shaped, 5mm long. Flowering occurs throughout most of the year.

Habitat: Occurs in swamps, river-flats, gilgai (hollows or depressions) and intermittently inundated areas. It is often associated with black box and river red gum.

Distribution: Occurs in southern areas of western New South Wales.





Kumpinya



Common name: Dillon Bush,
Nitre-bush

Paakantji: Kumpinya

Scientific name: *Nitraria billardierei*

The fruit is eaten raw (Eyre 1845, Berndt 1940). Both the fruit and tubers are eaten.

Description: Mound-shaped prickly shrub 1-2m in height, with small clustered leaves. Branches are often tangled. Leaves alternate, 1-4cm long, thick, flat, smooth, blue-green or green. It has small white flowers in small clusters along the branches. Flowering occurs mainly in spring. Fruit fleshy, dark red, oval in shape, 1-2cm long, ripens in midsummer.

Habitat: Often grows on saline or over-grazed areas, on loamy or clayey soils.

Distribution: Widespread across western New South Wales.

Desert Glasswort (Paakantji name not identified)



Common name: Desert Glasswort
Scientific name: *Pachycornia triandra*

The branches and roots can be broken to yield lots of grubs which are good eating.

Description: Bright green leafless shrub to 80cm high, with stout, fleshy segmented branches 3-6mm wide, segments 10-20cm long, lobed at the joints. Branches end in short, thick fruiting spikes of 4-6 segments which become hardened and unite to form the branches. Flowers embedded in rows of three on each side at the base of the fruiting segments, seed small, remaining enclosed in segments. Flowering occurs in summer.

Habitat: Occurs in clay soil, usually in a saline environment with bladder saltbush communities with pigface or in black box communities.

Distribution: Prevalent between Wentworth, New South Wales and the South Australian border.





Mallee Rice-flower (Paakantji name not identified)



Common name: Mallee Rice-flower

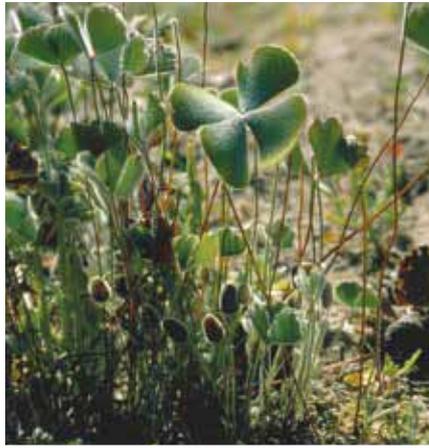
Scientific name: *Pimelea microcephala*

The fruit is eaten, but it is recommended to not chew the seed (Gott et al. 2005). The plant also has medicinal uses.

Description: Shrub with opposite narrow leaves, each pair at right angles to the one below. Stems are shiny brown and the bark pulls off in long strips. Cream coloured flowers are in clusters. Small, oval fruit is orange-red and has a dark seed.

Habitat: Can be found growing in open forest and mallee, on sandy soils.

Distribution: Widespread across far western New South Wales.



Ecological Cultural Knowledge -
Paakantji & Maraura
Forb / Herb / Fern Section





Tarvine (Paakantji name not identified)



Common name: Tarvine

Scientific name: *Boerhavia dominii*

In the southern far-western plains region the root was cooked for food, but probably pounded to break up the fibre.

Description: Perennial forb, hairless or occasionally hairy, at times sticky, with prostrate or upright slender stems to 1 m in length arising from a central taproot. Leaves in unequal pairs, oval, oblong or lance-shaped, stalked, 1-4cm long, the margins wavy, upper surface green or purplish, under-side pale. Flowers pink, small, about 5mm long borne singly or in groups of 2-4. Fruit pear-shaped, sticky-haired, 3mm long. Flowering occurs in summer.

Habitat: Occurs in a wide range of vegetation types and on many soil types.

Distribution: Widespread in western New South Wales.

Wanka-parlu, Tharamula



Common name: Leek Lily
Paakantji name: Wanka-parlu,
Tharamula
Scientific name: *Bulbine*
semibarbata

*Leaves of this species were cooked (steamed) and eaten (Gott 2008). It is not known if the tuber was eaten. The related species *Bulbine bulbosa* yam has yellow flowers and an edible root known as*

*Ngampala. The tuberous roots were cooked and eaten by northern Paakantji (Hercus 1993). The Paakantji name Wanka-parlu may refer to this species. Wanka-parlu is also a general term for 'small bird'. The Paakantji name Tharamula may also refer to the species *Thysanotus*, probably *baueri*.*

Description: Tuberous lilies sprout in the autumn, flower in the spring, and die back to tubers in the dry summer.

Habitat: Can be found growing on salt lake margins and frequently on sandy soils.

Distribution: *Bulbine* species and other native lilies may be found throughout western New South Wales.





Ngapila, Kalutyu



Common name: Small Purslane
Paakantji name: Ngapila,
Kalutyu
Scientific name: *Calandrinia
eremaea*

The leaves and stems were steamed or mixed with baked bark. The seed was ground and cooked (Gott et al. 2005). Kalutyu in Paakantji means spinach,

*most likely the *Calandrinia* sp. and may also be used for *Tetragonia tetragoniodes*.*

Description: Small plant with succulent cylindrical leaves at the base, and small pink, white or purple flowers on tall (1-2cm) stalks. The leaves are 1-4cm long. It is an annual plant, and grows in winter-spring and sometimes into summer.

Habitat: It occurs on a range of soils and vegetation types, most often on sandy soils.

Distribution: *Calandrinia eremaea* is widespread throughout western New South Wales.

Common Sneezeweed, Old Man Weed (Paakantji name not identified)



Common name: Common Sneezeweed, Old Man Weed
Scientific name: *Centipeda cunninghamii*

Old Man Weed was used for many complaints, including skin complaints, and as a general tonic. It was drunk as a tea for general health.

Description: Small soft plant about 20cm tall, with oblong-wedge shaped toothed, bright-green leaves, 1-3cm long and a characteristic smell. It flowers in green billy-button heads without petals, 4-7cm diameter almost globular and domed on top, flowering occurs in spring-autumn. Seeds club-shaped 1.5-2.5mm long.

Habitat: Occurs in many vegetation communities and on a wide variety of soil types. It is usually found in damp areas subject to flooding, or where water lies for some time, and can be locally very abundant.

Distribution: Widespread throughout the Western Division of New South Wales.





Paalampaltharu



Common name: Darling Lily
Paakantji name: Paalampaltharu
Scientific name: *Crinum flaccidum*

Although in the past some people have said the bulb can be eaten, it is agreed by local people to be poisonous. As a medicine, it is cut up with a little sugar and placed on boils.

Caution: Care should be taken as this plant may be poisonous.

Description: Large perennial lily, emerging annually from a pale egg-shaped bulb, 7-10cm in diameter. Leaves all rising from the base of the plant, flat and soft, to 50cm long, 1-4cm wide. Flowers large, white or creamy, strongly scented, with a slender tube 5-10cm long, the flowers are borne in clusters of 5-15 at the tip of a stout fleshy stem 40-60cm high. Fruit is a fleshy capsule, 1-3cm diameter. Flowering occurs in summer-autumn.

Habitat: Occurs on a wide range of soil types particularly on alluvial soils in open situations.

Distribution: Widely distributed in western New South Wales.

Spreading Flax-lily (Paakantji name not identified)



Common name: Spreading Flax-lily
Scientific name: *Dianella revoluta*

The leaf is split and twisted for tying to use in making tools and implements.

Description: Hairless perennial herb, with rigid stems to 1.5m high rising from a fibrous rootstock. Leaves mostly at the base of the plant, deep green, held stiffly erect, Y-shaped at the base with margins rough and rolled strongly downwards to the midrib. Flowers pale blue with six petals and dark-brown to almost black anthers. Fruit a blue globular berry about 1cm in diameter. Flowering occurs in summer.

Habitat: Occurs mainly in mallee communities.

Distribution: Distributed widely in south western New South Wales.





Nhakalu



Common name: Pigface,
Round-leaf Pigface
Paakantji name: Nhakalu
Scientific name: *Disphyma*
crassifolium

The leaves of Nhakalu are eaten for greens, water and salt. The fruit is dry and not eaten.

Description: Perennial forb with prostrate stems. Smooth, more or less cylindrical leaves (or leaves with three flattened but convex faces and rounded angles between) which grow in clusters or opposite pairs on a horizontal creeping stem that roots at the nodes. Leaves often have a reddish or yellowish tinge and are 2-5cm long and 4-6mm thick with a pointed tip. Flowers are pink or purple with numerous linear petals and are about 3cm diameter when open. Flowers close at night and open again in late morning. Fruit is

a red to light brown dehiscent capsule with five membranous flaps which open at the top when ripe. Flowering occurs in spring-summer.

Habitat: In this region, *Disphyma crassifolium* grows on saline soils.

Distribution: Found throughout south western New South Wales.

Blue Crowfoot (Paakantji name not identified)



Common name: Blue Crowfoot
Scientific name: *Erodium crinitum*

The leaves are eaten raw as a vegetable. This plant used to be much more abundant, and is thought to have disappeared due to livestock grazing.

Description: Hairy forb with strong sprawling stems rising from a stout fleshy taproot. Leaves have slender stalks – at the base of the plant the leaves are up to 6cm long and 3cm wide with many-lobes. Higher up the stem the leaves are smaller. The flowers are deep blue and about 10mm long and 5mm wide, flowering occurs in spring.

Habitat: Occurs on all soil types and in most plant communities, although it is more common on sandy soils.

Distribution: Widespread in open woodland, grassland and saltbush communities throughout south western New South Wales.





Mirrica



Common name: Native Licorice
Paakantji name: Mirrica
Scientific name: *Glycyrrhiza
acanthocarpa*

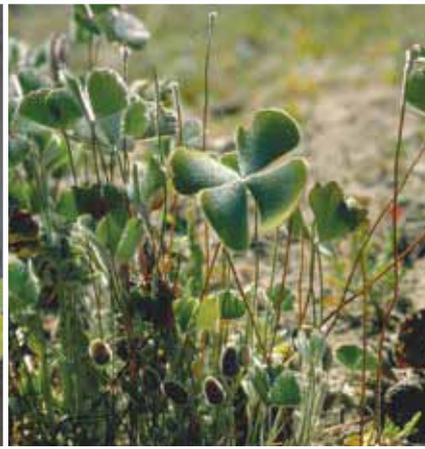
The root of Mirrica can be eaten.

Description: Erect, rather sticky, almost hairless sub-shrub, 60-100cm high. Leaves strongly aromatic when crushed, each composed of 4-6 pairs of oblong leaflets, each leaflet 15-20mm long, bordered by small hairs. Flowers lilac, pea-like, about 7mm long, in a raceme from the leaf-axils. Fruit a rust-coloured pod, 5-6mm long, covered with hard prickles, containing one kidney-shaped seed. Flowering occurs in spring-summer.

Habitat: Found on a wide range of soil types including deep white sands on lake shores, red earths and heavy grey and brown clays, in black box and river red gum communities.

Distribution: Most frequent in the south west of western New South Wales.

Ngartu, Thanduka, Thantaka



Common name: Nardoo
Paakantji name: Ngartu,
Thanduka, Thantaka
Scientific name: *Marsilea
drummondii*

Nardoo seeds (spore cases) were ground on a stone, then carefully yandied in a bark or wooden dish to separate the hard case from the soft nourishing spores, which were mixed into a dough and cooked.

Caution: Can be poisonous if not correctly prepared.

Description: Perennial fern, with hairless or sparsely hairless rhizomes. Fronds clover-like, with 4 narrow to broad leaflets at the end of a stalk 2-30cm long; in plants growing in water the floating leaflets are rounded, hairless, total size of leaflet is 2-5cm diameter. In terrestrial plants, leaflets are smaller and densely hairy. Reproducing from spores contained in fruiting bodies called sporocarps, which are 4-9mm long

covered in fawn hairs, borne on unbranched stalks 8-35mm long. Sporocarps are present in spring-autumn.

Habitat: Occurs in the margins of gilgais, waterholes, depressions, claypans, wetlands and rivers in most plant communities.

Distribution: Found throughout western New South Wales.





Yuramu



Common name: Native Yam, Yam Daisy, Murnong
Paakantji name: Yuramu (yam)
Scientific name: *Microseris lanceolata*

The tubers are cooked as a starchy food, and produce a sweet juice. It used to be more common in Paakantji country, and further north is now only known in Mungo National Park. The yam known by

Christine Mitchell near Lake Victoria and residents of Kulcurna Station could be Yam Daisy. The Paakantji word for yam may also apply to other species.

Description: Hairless perennial forb, to 40cm high, rising annually from a fleshy tapering root. Leaves are all at the base of the plant, lance-shaped, usually with smooth margins, shiny, dark olive green. Flowerheads large with many strap-shaped yellow “petals”, borne singly on long smooth stalks, the head drooping before

opening. Seeds narrow-cylindrical, 8-10mm long, ribbed, crowned with a tuft of white scales about 15mm long. Flowering occurs in spring.

Habitat: Occurs on a range of soils including shallow sandy soils on stony hills in white cypress pine and other plant communities, also found on sandy clay loams in mallee and on grey clays.

Distribution: Found spasmodically in the south-eastern part of western New South Wales.

Kaanpi



Common name: Pigface, *Sarcozona*
Paakantji name: Kaanpi
Scientific name: *Sarcozona praecox*

The fruit of Kaanpi is eaten raw and also the green leaves. The juice is used for salt and for medicine and is squeezed into eyes for infection, or rubbed on the skin.

Description: Fleshy plant which grows low to the ground. It has succulent 3-angled leaves opposite, 6-10cm long, 5-8mm wide and bright purple-pink flowers with many thin radiating petals. The flowers are usually in threes at the ends of the branches with 4-28mm long petals. The fruits are reddish, juicy, egg-shaped, 10-20mm long, with many seeds. Flowering occurs in late winter-spring.

Habitat: Grows on heavy or sandy soils and is often found growing in saline areas. It has been found in communities containing bladder saltbush and black bluebush.

Distribution: Widely scattered across western New South Wales.





Kapuka, Mathu



Common name: Velvet Potato-bush, Quena, Felted Nightshade
Paakantji name: Kapuka, Mathu
Scientific name: *Solanum coactiliferum*, *Solanum ellipticum* (northern), *Solanum esuriale* (widespread)

Solanum or nightshades are used by Aboriginal people in many areas of Australia. The berries of *S. ellipticum* are edible.

Caution: Care should be taken as some species of nightshade can be poisonous.

Description: *S. coactiliferum* is an often bushy forb to 25cm high, grey or silvery-green, with prickles usually on branches. Leaves are oblong and densely downy. Flowers are purple and the fruit is a yellow to yellow-brown berry. *S. ellipticum* is a forb to 40cm high with soft greyish leaves and a few prickles. It has a purple flower and round greenish fruit. *S. esuriale* is a forb to 30cm high with short greyish velvety covering without spines, sometimes prickles

near the base. Flowers are purple, occasionally white and the fruit is a yellow berry. Flowering of each species occurs throughout the year.

Habitat: *S. coactiliferum* grows mainly on sandy soils. *S. ellipticum* grows on heavy clay or sandy soils. *S. esuriale* grows along seasonal watercourses.

Distribution: The nightshades *S. coactiliferum* and *S. esuriale* occur in the Lake Victoria area. Velvet Potato-bush *S. ellipticum* occurs further north in western New South Wales.

Panyuwanpa, Pulapul, Parlumpa



Common name: Common Sow Thistle, Milk Thistle
Paakantji name: Panyuwanpa, Pulapul, Parlumpa
Scientific name: *Sonchus oleraceus*

The base of the stem is eaten raw, mainly the inside base of the stem. The plant is also known as a medicine for the blood, and may have been used as a contraceptive (Gott 2008). Some of the Paakantji words mean thistle or large-leaved thistle.

Description: Erect, hairless annual forb with hollow stems, up to 1m tall, exuding milky sap when broken. Leaves thin and soft, dull-green deeply lobed, margins toothed and ending in spines. Flower heads with numerous unequal yellow petals in clusters on short stalks at end of stems. Bud conical when grown, 10-12mm long. Seeds about 3mm long and up to 1mm wide, flattened with a tuft of white silky hairs. Flowering occurs mostly in spring.

Habitat: Occurs on most soil types and in most plant communities.

Distribution: An exotic species which is widespread throughout the Western Division of New South Wales.





Parlumpa, Panpurla, Kalatyila-manu, Mangarta



Common name: Native Spinach, Desert Spinach, New Zealand Spinach

Paakantji name: Parlumpa, Panpurla, Kalatyila-manu, Mangarta

Scientific name: *Tetragonia moorei*, *Tetragonia tetragonoides*

The leaf is eaten as a source of greens. Cooking is recommended (to remove the oxalates), but it may

have been eaten raw. There are several Paakantji words for spinach, including Kalatyila-manu where manu means vegetable food.

Description: Low-growing plant with oval succulent glistening leaves, yellow flowers, and hard green fruits.

Habitat: *T. moorei* grows in a wide range of soils from loams to clays, particularly in areas subject to periodic inundation. *T. tetragonoides* occurs on heavy-textured soils from red sands to grey cracking clays.

Distribution: Native Spinach is widespread but scattered in inland salt marshes or saltbush country in southern Australia.

Puntha, Kalampa, Kura-kura



Common name: Cooper Clover and Medic
Paakantji name: Puntha, Kalampa, Kura-kura
Scientific name: *Trigonella suavissima* and *Medicago* species

The leaves of Puntha are eaten as a green vegetable. The whole plant is eaten raw. It is a medicine against indigestion. Mitchell (1848) used Trigonella suavissima as a vegetable, and called it calomba.

Medic (Medicago polymorpha) is an introduced pasture plant which may now be used as a substitute for puntha, which it resembles.

Description: Cooper Clover is a clover-like plant with soft 3-part leaves on long stalks, whitish flowers, and is found near water. Medic has 3-part leaves, small yellow pea flowers, and a coiled bristly pod.

Habitat: *Trigonella suavissima* was abundant in spring on the floodplains, but is thought to have been reduced by grazing.

Distribution: Can be found on Murray River floodplains in western New South Wales.





Ecological Cultural Knowledge -
Paakantji & Maraura
Climber Section

Nhiilyi, Thapi, Maathi



Common name: Mistletoe, Harlequin Mistletoe

Paakantji name: Nhiilyi, Thapi, Maathi (Mistletoe berries)

Scientific name: *Amyema* species, *Lysiana exocarp*

Mistletoe berries are called Maathi and eaten raw. Berries are not currently known to be eaten locally

but could have been eaten in previous times or other parts of Paakantji country.

Description: Parasitic plants which attach to the stems of different trees and shrubs. Mistletoes bear fruits which are sweet, mucilaginous and sticky ('snottygobbbles'). The flowers are usually red and the seeds are spread by birds. *Lysiana* species are another type of mistletoe.

Habitat: Can be found growing parasitically on a range of trees, common in red gum and box communities.

Distribution: There are five species of *Amyema* and one species of *Lysiana* in far south western New South Wales





Mallee Strangle-vine, Dodder-laurel (Paakantji name not identified)



Common name: Mallee Strangle-vine, Dodder-laurel
Scientific name: *Cassytha melantha*

The fruit is eaten raw.

Description: Stout-stemmed twining parasite, attached to trees or shrubs by roots or suckers arising from the stems. Leaves reduced to tiny scales. Flowers small, inconspicuous, greenish-brown outside, cream inside, widely spaced, in short clusters on downy stalks 15-20mm long, individual flowers appearing in an oval body 4mm long, covered in blackish hairs. Fruit green, globular, fleshy, hairless, 7-10mm diameter, turning brown when mature. Flowering occurs in summer.

Habitat: May be found growing parasitically on trees and shrubs in mallee communities, and occasionally in belah-rosewood communities.

Distribution: Found mainly in south-west New South Wales.

Kakarla



Common name: Native Pear, Doubah, Banana Creeper
Paakantji name: Kakarla
Scientific name: *Marsdenia australis*

The fruit is Kakarla and the root is Ngarnti. When the fruit is young, it is eaten raw. The mature fruit is dry and the seeds are surrounded by fine silky hairs which are soft and like spun glass. At this stage the fruit is cooked in the fire and the seeds eaten, but not the

fibres. The hairs attached to the ripe seed can be used to catch the fire when fire-making. The vine arises from a thick tuberous root, which was also eaten. The root is roasted, scraped or pounded to free it from the fibrous inner core, which is discarded.

Description: Strong climber growing on trees, logs and fences, often 2m or more in height. Leaves are opposite and narrow, with a milky sap, 4-10cm long, rather thick, hairy when young. The branches, stems and flower-stalks exude a white milky sap when broken. Flowers

are creamy, sometimes greenish, 8mm long, bell-shaped. It is known best for its pear-shaped fruit, a thick-walled broad-tapering pod, 4-10cm long, drooping, green-coloured and finely hairy. Flowering occurs in late spring-summer.

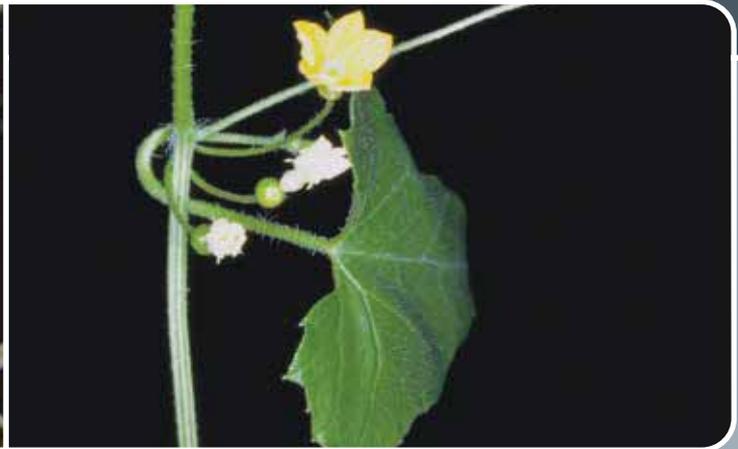
Habitat: Variable, most common on sandy soils in mallee, belah-rosewood or mulga communities.

Distribution: Widespread throughout the western half of New South Wales.





Desert Cucumber (Paakantji name not identified)



Common name: Desert Cucumber
Scientific name: *Mukia maderaspatana* or *Mukia micrantha*

The fruit is eaten (Kerridge MS 1913).

Description: An annual vine, rough to touch because it is covered in short hairs. Flowers are pale yellow and very small (about 0.5cm long) and grow where the leaves join the stem. The vine flowers in summer-autumn. The plant belongs in the melon family. The fruit is hairless, 10-14mm in diameter, roughly egg-shaped.

Habitat: Grows on grey clay soils along floodplains, in areas where floodwaters have receded and around lakes.

Distribution: Can be found throughout western New South Wales, more commonly in the north.



Ecological Cultural Knowledge -
Paakantji & Maraura
Reed / Grass Section





Barilla



Common name: Marsh Club-rush
Paakantji name: Barilla
Scientific name: *Bolboschoenus medianus*

The hard starchy tubers were roasted and pounded into a thin cake between stones (Eyre 1845). Sturt recorded this plant being used at Menindee in 1849.

Description: An aquatic plant growing in patches on floodplains, and requiring regular flooding. A perennial grass-like herb (or sedge) with an underground fleshy stem (rhizome). Leaves 6–8mm wide. Flower heads with 4–6 branches 2–10cm long, bearing clusters of 1–6 spikelets. Spikelets 1–2cm long. Scales around the flower (bracts) 7mm long, yellow-brown. Bristles no more than two-thirds as long as nut, often shed. Nut flat to convex or three-sided with concave faces, 3–4mm long, 2–2.5mm diameter, shining. Flowering occurs in spring–summer.

Habitat: Grows in swamps and around waterholes. It can grow in dense stands, for example Eyre (1845) described it as ‘looking like a field of wheat’.

Distribution: Restricted to permanent waterways and waterholes and nearby areas throughout the Western Division of New South Wales.

Spiny Flat-sedge (Paakantji name not identified)



Common name: Spiny Flat-sedge
Scientific name: *Cyperus gymnocaulos*

Spiny Flat-sedge was used for baskets and string. The string was used for bird snares when hunting (Kerridge MS 1913).

Description: Densely tufted perennial sedge with stout woody shortly creeping rhizomes. Stems mainly cylindrical, but often triangular near the top, grooved lengthways. Leaves reduced to sheaths, except on juvenile plants. Flowerhead contracted into a dense head or 1-6 globular secondary heads. Spikelets reddish to chestnut-brown, 3-6mm long, 8-20 flowered, numerous in each head. Fruit a brown or black shining nut, triangular in cross-section. Flowering occurs throughout the year.

Habitat: Grows near water on river banks, lake shores and wetland margins, on sandy to heavy clay soils in river red gum and black box communities.

Distribution: Can be found throughout western New South Wales.





Grasses (Paakantji name not identified)



Common name: Grasses
Scientific name: various species
e.g. *Eragrostis dielsii*

In Paakantji country a range of grass species have seeds which appear suitable for use. Grasses grew abundantly after rains or flooding and along the Darling River, grass seeds were used for food. The species most likely to have been used are Eragrostis dielsii and E. eriopoda which occur in the

Lake Victoria area. The seed of Eragrostis and other species is ground into flour or paste (Gott 2008; see also Cleland and Tindale 1959, Allen 1973).

Description: Forming a family of plants grouped by their characteristic of veins growing parallel to the long axis of the leaf, the Poaceae (Grasses) family is the largest group of plants found in western of New South Wales.

Habitat: Generally grasses grow in a wide range of soil types, as open grasslands, amongst shrub and tree communities, among sand dunes and in other areas.

Distribution: Grasses can be found growing throughout western New South Wales.

Waru, Pinthuru



Common name: Cane Grass
Paakantji name: Waru, Pinthuru
Scientific name: *Eragrostis australasica*

The grass used for thatching was probably Cane Grass. Also a mat was made with such a grass. Seed from a range of Eragrostis species (love grasses) have been used for food (Gott 2008).

Description: Tall, erect, cane-like perennial grass to 3m high. Stems very stout, rigid, branched at the nodes, the upper branches usually clustered with brown sheaths at the base. Leaves scattered along the stems, slender, short, rather stiff, flat, 3-20cm long, often bluish-green. Flowerheads an open pyramid shape, 10-20cm long, 6-12cm wide with well-spaced spreading branches. Spikelets 5-12mm long, 6-12 flowered, straight and flattened. Flowering mainly occurs in spring.

Habitat: Occurs in low-lying areas subject to intermittent flooding, such as wetlands, gilgais and claypans, often preferring slightly saline heavy soils.

Distribution: Found throughout western New South Wales.





Warrego Grass (Paakantji name not identified)



Common name: Warrego Grass
Scientific name: *Paspalidium jubiflorum*

The seed is ground into flour and cooked. Grasses were collected for food along the Darling River. Grasses which grow near permanent water and in dense stands would make harvesting much easier.

Description: Leafy tussocky perennial grass, 30-120cm high, green or blue-green, hairless, arising from short creeping rhizomes, the base of the plant has rigid leaf-sheaths. Stems unbranched or sometimes branched, rather stout to slender, usually cane-like, smooth, round or slightly flattened. Leaves flat, rather thin, 2.5-25cm long, 4-10mm wide, tapering to a long fine point with a conspicuous whitish midrib. Flowerhead a very narrow panicle, with up to 16 widely spaced spikes 1-4cm long, borne erect and pressed toward the main axis.

Spikelets 2-flowered, 2.5-3mm long, pale green to straw coloured, slightly flattened in two rows. Flowering occurs in summer-autumn.

Habitat: Prefers heavy clay soils along permanent rivers and creeks, in ephemeral creek beds and wetlands in black box, river red gum and myall communities.

Distribution: Found widely in western New South Wales.

Pulyu-pulyu



Common name: Common Reed
Paakantji name: Pulyu-pulyu
Scientific name: *Phragmites australis*

The stem is used for spears, and cut for necklaces. The stems could also be used as a snorkel for duck hunting. Pati which means reed spears were traded to the south. In the region and especially along the Murray River, Common Reed is most important for spear-shafts. The reed is particularly

well-grown along the Murray River, and spear-shafts were traded south (Smyth 1878: 305-6; 2:298). Stems were cut green, stored, straightened in fire for spears (Palmer 1884). The spears were tipped with wood or bone. The reed-beds were regularly burnt (Kirby 1894).

Description: Tall bamboo-like grass growing in patches in shallow water, especially where the water is still. It has large fluffy seed heads. Robust perennial grass, 1.5-3m high, spreading by rhizomes. Stems cane-like, rigid, smooth,

hairless. Leaves mostly on the stems, flat, hairless. Flowerhead dense, soft, brown to purplish, silvery white at maturity, 15-40cm long, with numerous short branches. Flowering occurs summer-early winter.

Habitat: Grows in wet places especially at the edge of ponds and streams. Usually occurs on heavy clay soils.

Distribution: Occurs mostly in the southern half of western New South Wales.



Pula



Common name: Porcupine Grass

Paakantji name: Pula

Scientific name: *Triodia scariosa*

The seed is ground for food (Kerridge MS). The leaves are rubbed on the body as masking scent so kangaroos cannot smell the Paakantji hunter. This works because kangaroos lie in Porcupine Grass and are used to its smell. This grass may also have been used for resin, although as this is a 'hard' Triodia, it may not have provided resin as other 'soft' Triodia species do.

Description: Dense perennial tussock grass with long and sharp-pointed leaves. It grows to 60cm high and up to 90-120cm wide with rigid flower stems to 90cm high. Very old tussocks form rings up to 3m in diameter with a dead centre. Flowerheads are 10-20cm long, 10-25mm wide, straw coloured when mature. Flowering occurs in spring-early summer.

Habitat: Grows on mallee sands.

Distribution: Found throughout most of New South Wales, but less common in the north-west and south-east.

Cumbungi, Bulrush (Paakantji name not identified)



Common name: Cumbungi, Bulrush
Scientific name: *Typha domingensis*

Along the Murray River and its tributaries, the underground rhizome (root) was a staple food. It was cooked, usually in an earth oven, and the outer layer stripped off. The central part of the stem, which is full of starch and fibre, was twisted into a knot and chewed. The starch is granular and potato-tasting. After chewing, the remaining fibre was used to make string. The string was used to make large nets, bags, brow bands and for binding

weapons. Krefft records its use for string near the Murray-Darling junction (1865). According to Robinson, Maraura did not make bags and mats. However they probably traded them from other areas. In the spring, the young flower-shoots were also eaten.

Description: Robust semi-aquatic perennial reed, to 2m tall or more, with rhizomes to about 20mm wide and stems to 20mm wide. Leaves occur in two rows along each stem; the blade flat, tough, 10-25mm wide and 1-2m long. Flower spikes

cylindrical, velvety, brownish, 10-25cm long, 1-2cm wide. When mature, the spike releases tiny fluffy seeds. Flowering occurs in summer.

Habitat: Grows in swamps, margins of lakes and streams, irrigation channels and drains. Inhabits fresh or slightly brackish water to 1.5m deep.

Distribution: Widely distributed throughout New South Wales, becoming less frequent in the drier north-west.



Ecological Cultural Knowledge - Paakantji & Maraura

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Ecological Cultural Knowledge - Paakantji & Maraura

Index

Paakantji names					
68	Barilla	65	Ngarnti	55	Thanduka
57	Kaanpi	55	Ngartu	55	Thantaka
15	Kaarima	52	Nhakalu	63	Thapi
65	Kakarla	28	Nhampura	32	Thara
61	Kalampa	63	Nhiilyi	47	Tharamula
60	Kalatyila-manu	30	Paalaka	20	Thulkuru
36	Kalthika	50	Paalampaltharu	20	Thurpa
48	Kalutyu	30	Paka-puta	47	Wanka-parlu
13	Kamuru	31	Palpu	71	Waru
15	Kantu-ngara	20	Panpa	41	Wirnta
58	Kapuka	30	Panparla	15	Yunga
28	Kapuru	60	Panpurla	56	Yuramu
12	Karlu	59	Panyuwanpa		
23	Karpuka	59, 60	Parlumpa	Common names	
42	Kumpinya	13	Parnara	22	Apricot - Native
61	Kura-kura	39	Parnta	37	Ballart - Leafless
14	Kurkuru, Kurkur(u)	36	Partiku	65	Banana Creeper
36	KuyipaRa	73	Pati	12	Belah
10	Maapu	14	Pikiri	21	Bell-fruit Tree
63	Maathi	11	Pinpa	14	Black Box
18	Malka	71	Pinthuru	12	Black Oak
18	Malka-manu	23	Pintyinya	40	Boxthorn - Australian
60	Mangarta	26, 29	Pirtili	75	Bulrush
58	Mathu	74	Pula	22	Butterbush
24	Matya Manu	59	Pulapul	37	Cherry - Leafless
54	Mirrica	73	Pulyu-pulyu	61	Clover - Cooper
47	Ngampala	61	Puntha	38	Comb Grevillea
48	Ngapila	20	Pura	53	Crowfoot - Blue
		20	Puraya	66	Cucumber - Desert
				75	Cumbungi
				11	Cypress Pine
				11	Cypress Pine - White
				43	Desert Glasswort
				42	Dillon Bush
				64	Dodder-laurel
				65	Doubah
				36	Emu Bush
				10	Eumong
				51	Flax-lily - Spreading
				71	Grass - Cane
				74	Grass - Porcupine
				72	Grass - Warrego
				70	Grasses
				32	Hopbush - Narrow-leaf
				54	Licorice - Native
				41	Lignum
				41	Lignum - Tangled
				50	Lily - Darling
				47	Lily - Leek
				15	Mallee
				44	Mallee Rice-flower
				64	Mallee Strangle-vine
				68	Marsh Club-rush
				61	Medic
				28	Miljee
				63	Mistletoe
				63	Mistletoe - Harlequin
				18	Mulga

Ecological Cultural Knowledge - Paakantji & Maraura

Index (Continued)

19	Mulga - Umbrella	49	Sneezeweed - Common	31	<i>Beyeria opaca</i>	39	<i>Hakea leucoptera</i>
56	Murnong	59	Sowthistle - Common	46	<i>Boerhavia dominii</i>	39	<i>Hakea tephrosperma</i>
55	Nardoo	60	Spinach - Desert	68	<i>Bolboschoenus medianus</i>	40	<i>Lycium australe</i>
29	Nealia	60	Spinach - Native	47	<i>Bulbine semibarbata</i>	63	<i>Lysiana exocarp</i>
39	Needlewood	60	Spinach – New Zealand	48	<i>Calandrinia eremaea</i>	65	<i>Marsdenia australis</i>
39	Needlewood - Hooked	26	Spine Bush	11	<i>Callitris glaucophylla</i>	55	<i>Marsilea drummondii</i>
39	Needlewood - Silver	69	Spiny Flat-sedge	11	<i>Callitris gracilis</i> subsp. <i>murrayensis</i>	61	<i>Medicago</i> species
58	Nightshade - Felted	16	Sugarwood	64	<i>Cassytha melantha</i>	56	<i>Microseris lanceolata</i>
42	Nitre-bush	46	Tarvine	12	<i>Casuarina pauper</i>	41	<i>Muehlenbeckia florulenta</i>
49	Old Man Weed	59	Thistle - Milk	49	<i>Centipeda cunninghamii</i>	66	<i>Mukia maderaspatana</i>
65	Pear - Native	31	Turpentine Bush - Dark	21	<i>Codonocarpus cotinifolius</i>	66	<i>Mukia micrantha</i>
52	Pigface	31	Turpentine Bush - Pale	50	<i>Crinum flaccidum</i>	16	<i>Myoporum platycarpum</i>
52	Pigface - Round-leaf	26	Wait-a-while	69	<i>Cyperus gymnocaulos</i>	42	<i>Nitraria billardierei</i>
11	Pine - Murray	29	Wattle - Needle	51	<i>Dianella revoluta</i>	43	<i>Pachycornia triandra</i>
33	Pituri	27	Wattle - Sandhill	52	<i>Disphyma crassifolium</i>	72	<i>Paspalidium jubiflorum</i>
21	Poplar - Desert	28	Wattle - Umbrella	32	<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>	73	<i>Phragmites australis</i>
58	Potato-bush - Velvet	56	Yam - Native	33	<i>Duboisia hopwoodii</i>	44	<i>Pimelea microcephala</i>
48	Purslane - Small	56	Yam Daisy	34	<i>Einadia nutans</i>	22	<i>Pittosporum angustifolium</i>
24	Quandong - Bitter	Scientific names		35	<i>Enchylaena tomentosa</i>	23	<i>Santalum acuminatum</i>
23	Quandong - Sweet	18	<i>Acacia aneura</i>	71	<i>Eragrostis australasica</i>	24	<i>Santalum murrayanum</i>
58	Quena	19	<i>Acacia brachystachya</i>	70	<i>Eragrostis dielsii</i> & various species	57	<i>Sarcozona praecox</i>
73	Reed - Common	26	<i>Acacia colletioides</i>	36	<i>Eremophila</i> species	58	<i>Solanum coactiliferum</i>
10	River Cooba	27	<i>Acacia ligulata</i>	53	<i>Erodium crinitum</i>	58	<i>Solanum ellipticum</i>
13	River Red Gum	28	<i>Acacia oswaldii</i>	13	<i>Eucalyptus camaldulensis</i>	58	<i>Solanum esuriale</i>
20	Rosewood - Western	29	<i>Acacia rigens</i>	14	<i>Eucalyptus largiflorens</i>	59	<i>Sonchus oleraceus</i>
34	Saltbush - Climbing	10	<i>Acacia stenophylla</i>	15	<i>Eucalyptus species</i>	60	<i>Tetragonia moorei</i>
30	Saltbush - Old Man	20	<i>Alectryon oleifolius</i>	37	<i>Exocarpos aphyllus</i>	60	<i>Tetragonia tetragonoides</i>
35	Saltbush - Ruby	63	<i>Amyema</i> species	54	<i>Glycyrrhiza acanthocarpa</i>	61	<i>Trigonella suavissima</i>
16	Sandalwood - False	30	<i>Atriplex nummularia</i>	38	<i>Grevillea huegelii</i>	74	<i>Triodia scariosa</i>
57	Sarcozona	31	<i>Beyeria lechenaultii</i>			75	<i>Typha domingensis</i>



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