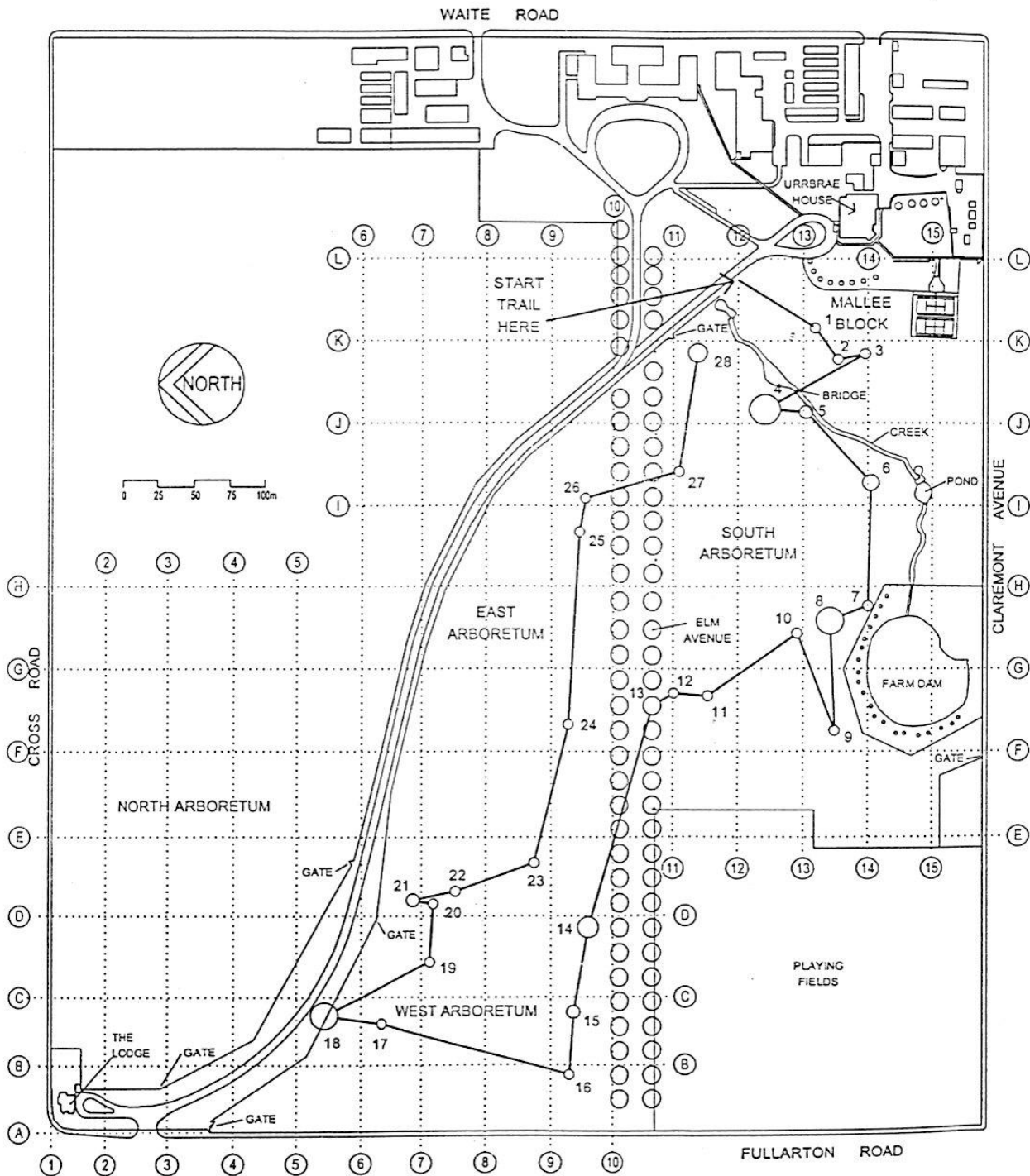


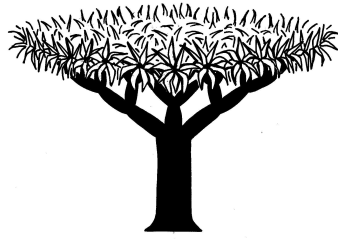


WAITE
ARBORETUM

THE WAITE ARBORETUM WALKING TRAIL



MAP PREPARED ON CAD BY
WOODHEAD INTERNATIONAL ARCHITECTS



THE WAITE ARBORETUM WALKING TRAIL

Each station on this trail is marked with a star dropper painted white with a numbered white cap. East is towards the hills, west is downhill towards the sea.

Start by the Greg Johns sculptural narrative (opposite the car park) and at the fork, take the left path. Walk ~50 m to just N of the sculpture blocks to find the first station.

[1] *Eucalyptus pyriformis* x *E. youngiana* (Myrtaceae) #1926B (K13). Common names: Pear-fruited Mallee x Ooldea Mallee

The large showy, pink flowers of this mallee occur from May to February and nectar and pollen are produced in abundance. This tree is shrubby, branches from the ground and rarely exceeds 4 m in height. Ooldea Mallee occurs in Tarcoola and Ooldea on Eyre Peninsula and near the Everard Range in Western Australia, Pear-fruited Mallee is found in W.A. The closely related species can form hybrids in cultivation. The specific name refers to the pear-like shape assumed by the bud.

Turn right ~ 5 m from *E. pyriformis* x *youngiana* and walk between the blocks "Seeing the Land" on the left and "Inland Sea" on the right, slightly S-W, ~ 20 m to:-

[2] *Eucalyptus dumosa* (Myrtaceae) #1939B (J13). Common names: Congo Mallee, White Mallee.

This species has a smooth whitish bark except towards the base where it is rough (in this specimen for 2 – 5 m) and grows from 2-8 m in height. The flowers are white with stamens 10–12 mm long, and are usually in groups of 3-8. The fruits have slightly protruding points. The bud caps are very

short in relation to the rest of the buds. This tree has a fine example of a lignotuber (a woody underground stem) from which new shoots can grow. The South Australian "mallee root" is really a lignotuber. These structures, as well as the epicormic buds (dormant buds on the stems) allow this and other eucalypt species to survive bush fires. The name *dumosa* means "of bushy habit" a feature of this and other mallees. This species occurs in SA from Gawler to the Flinders Ranges, on Kangaroo Island (where it is called "Waikerie Mallee") and on Eyre Peninsula, in the western districts of Vic. and NSW and in WA.

Head S to and walk ~ 18 m to find:-

[3] *Eucalyptus macrocarpa* #1952A (J13). Common name: Mottlecah.

This Western Australian species is a sprawling shrub which often grows to a height of about 2-3 m although sometimes it is only about 1 m. Its foliage is silvery grey and the leaves are large with a point at the tip. The large, grey conical bud cap is distinctive. It has the largest fruit of any species of eucalypt and this is reflected in its specific name which means "large-fruited". The bark is grey and smooth and the flowers are red and showy and can appear at any time of the year although the main flowering time is from winter to spring.

Walk W and slightly N to the creek-crossing beside the large bottlebrush to:-

[4] *Ficus macrophylla*

(Moraceae) #15 (J12). Common name: Moreton Bay Fig.

Moreton Bay fig is one of the 30 or so species of fig native to Australia. It is a handsome shade tree with a large, spreading canopy and big buttress roots. The leaves are large (hence its specific name), entire, with a drip tip typical of many tropical plants. The fruits are small and somewhat dry but they provided an important food source for the Australian Aboriginal people. As with other *Ficus* species, the tissues contain milk ducts and there are separate male and female flowers. This particular tree was planted during the time of tenure of Peter Waite. The Moreton Bay fig is native to Qld.

Walk SE along the creek ~ 20 m to:-

[5] *Angophora subvelutina*

(Myrtaceae) #17 (J13) beside the creek. Common name: Broad-leafed apple.

Members of the genus *Angophora* are related to the eucalypts but differ from them in having the calyx lobes and petals free and not fused to form an operculum (calyptra) as in the eucalypts, adult leaves opposite rather than alternate and less woody fruit. There are 7 species of *Angophora*, which is endemic to Australia. *Angophora subvelutina* is a handsome, medium-sized tree with rough, persistent furrowed bark. The leaves are sessile, heart-shaped at the base and rather dense. In spring, the flush of new leaves is rosy pink. The crown is rounded and spreading (younger trees are pyramidal). All species are from the E coast of Australia. Its timber is not good but its roots were used by the Australian Aboriginal people as a source of water. The generic name is derived from Gk *angos*, jar; *phoros*, bearing; referring to the cup-like fruits.

Follow the creek down towards the bronze waterbird sculptures to find :-

[6] *Eucalyptus sideroxylon*

(Myrtaceae) #125C (I14). Common names: Red Ironbark, Mugga. This tree is just slightly S-E of the Owl Pole sculpture (just visible from *A. subvelutina*).

The most distinctive feature of this striking tree which may grow to 33 m, although it is usually only 10-25 m, is its hard, deeply furrowed, dark brown bark which contrasts sharply with its blue-grey or grey-green leaves and pendulous pale pink blossoms. The ironbark has great horticultural value and is very attractive to nectar-feeding birds, especially lorikeets. "Sideroxylon" means "iron wood".

Walk towards the dam about 80 m and follow the track beside it in a westerly direction to:-

[7] *Callitris gracilis*

(Cupressaceae) # 513 (G14). Common names: Southern or Black Cypress Pine.

Callitris, along with the other conifers, belongs to the Division of non-flowering seed plants called Coniferophyta. It is the only genus which is native to SA. The generic name is derived from Gk *kalos*, beautiful; *treis*, three; on account of the symmetrical arrangement of the minute leaves. *Callitris gracilis* is a large (to 17 m) tree with dark green, scale-like leaves rounded on their dorsal surface. The fruiting cones are ovoid, 2-3.5 cm long and may be either solitary or clustered, sessile or on short, thick peduncles (stalks). They are usually smooth and black when ripe.

20 m west is a large oak:-

[8] *Quercus canariensis*

(Fagaceae) # 437 (G13) Common names: Algerian Oak, Canary Oak, Mirbeck's Oak.

This large tree has a spreading canopy, rough bark and typical "oak" leaves.

Compare these later with the leaves of

Q. suber. As with all oaks, the male and female flowers are small, inconspicuous and separate.

Continue west round the dam past 4 *Agathis* trees to:-

[9] *Taxodium distichum*

(Taxodiaceae) # 557 (F13). Common name: Bald Cypress.

The genus *Taxodium* is an ancient one and was abundant in Europe, Asia and North America 65 million years ago. There are now only three species found in southern USA and Mexico and it is the only genus of conifers that includes both evergreen and deciduous species. In autumn, the beautiful, soft, green foliage of *T. distichum* turns russet brown prior to being shed. Bald Cypress can reach 40 m and attain a great age. In swamps they form astonishing hollow conical protuberances or knees, up to 3 m high and 30 cm in diameter, which project above the water from the shallow, wide-spreading root system. Presumably this response to flooding is to allow aeration of the roots.

Walk NE, past *Quercus canariensis* (big spreading tree) on left and walk in an easterly and slightly northerly direction for ~ 60 m to:-

[10] *Quercus suber*

(Fagaceae) # 431A (G12). Common name: Cork Oak.

Quercus suber is a large, evergreen, spreading tree with holly-like leaves which are glossy dark green above and grey felted below. Cork oaks are long-lived (up to 150 years), are native to the Mediterranean region, are the source of commercial cork and grow to ~ 18 m. The cork is thick and persistent and protects the tree against fire. The first stripping for commercial cork is made after about 25 years and the trees are subsequently stripped at intervals of 3-10 years. The sexes are separate and flowers are small and inconspicuous. There are about 450 species of oak. This species prefers cool areas and moist, well-drained fertile soils. Oak timber is remarkable for its strength, beauty and durability.

From *Q. suber* walk N 18 m towards the seat and turn W (left) after ~ 9 m and before you reach the seat to find:-

[11] *Dracaena draco*

(Agavaceae) # 467 (F11) on the left. Common names: Dragon Tree, Dragon's Blood.

The dragon tree is a striking shape with a flat top and regularly arranged, swollen branches and is the tree depicted in the Arboretum logo. It attains a great age and one specimen on Tenerife was famous for centuries and long believed to be the oldest tree in the world. When it blew down in 1868 it was 23 m high and had a trunk girth of almost 15 m. Dragon trees were long ago believed to have medicinal properties and were frequently carried on sailing ships. Indeed, William Dampier was carrying them when he landed on the W coast of W.A. in 1674. He wrote in his log "most of the trees we saw there were dragon trees" and went on to add that the gum which they exuded was the same as that from the dragon trees which they had aboard with respect to taste and colour. It is not known what trees he thought were dragon trees in W.A. The dried sap of the dragon tree is now used for colouring varnishes.

Head N, ~ 20 m to:-

[12] *Tamarix aphylla*

(Tamaricaceae) # 384 (F11). Common name: Tamarisk.

Tamarix aphylla is one of ~ 120 species in its family. It is thought to have become naturalised in Australia. Tamarisks have graceful, slender branches with scale-like leaves. The flowers are small and pink, are usually borne in spikes and have 4 or 5 petals and sepals and 5-numerous stamens. *Tamarix aphylla* was introduced into Australia because of its drought and salt tolerance and deep-rooted nature. Its specific name means "without leaves".

Continue walking N, ~12 m, to Elm Avenue to:-

[13] *Ulmus procera*

(Ulmaceae). Common name: English Elm.

This avenue was planted in 1928/9 when the Waite Arboretum was established. English Elm was widely planted by early settlers but fell into disfavour because of its vigorous root system which extends over a wide area and suckers prolifically. Nowadays it is better to plant specimens which have been grafted on to the non-suckering Scotch Elm, *U. glabra*, and a number of cultivars is available.

Walk W along the N side of Elm Avenue, past 8 elms, to find:-

[14] *Ficus retusa*

(Moraceae) # 974 (C9). Common name: Malayan Banyan.

Malayan Banyan is one of the 800+ species comprising genus *Ficus*. It is an evergreen tree with a wide-spreading crown attaining a height of 20 m in its native habitat. The most striking feature of this tree is its aerial roots that often become secondary branches in the moist tropics. The leaves, bark and aerial roots are used in native medicines to relieve toothache and as a balm on bruises.

Continue W, ~ 60 m, to:-

[15] *Cercis siliquastrum*

(Leguminosae) # 909 (B9). Common name: Judas Tree.

There are 7 species of *Cercis*, all native to the North Temperate zone of Europe, China and North America. In this species the heart shaped leaves are preceded by abundant clusters of bright rosy-purple flowers which cover the tree including the trunk and limbs. After the spectacular flowering in spring, numerous long, flat, reddish-brown seed pods are produced. According to legend, it was from a specimen of this species that Judas Iscariot hanged himself; hence the common name.

Approximately 45 m W of *C. siliquastrum* is:-

[16] *Flindersia australis*

(Rutaceae) # 925 (A9). Common names: Crow's Ash, Australian Teak.

The generic name of this handsome tree honours Capt. Matthew Flinders (1774-1814) who circumnavigated Australia. 15 of the 22 species of *Flindersia* are native to Australia. Most of the Australian species are found in the warm, moist forests of the north-east coast where they grow to a height of 50 m and are valued for their hard, durable timber. The dense panicles of white flowers with brown centres are followed by unusual 4-, 5- or 6-parted woody fruits covered with blunt spines. Unlike most other species of *Flindersia*, the boat-shaped valves of the *F. australis* capsule remain united at the base after dehiscence and make a fine subject for floral art work or dried floral arrangements.

Walk NNE from *F. australis*, to ~40 m short of the fence along the driveway to Urrbrae House to:-

[17] *Sequoia sempervirens*

Taxodiaceae) # 1253 (B6). This tree is to the right (E) of a large candle pine. Common name: Redwood.

About 40 species of *Sequoia* flourished in the northern hemisphere about 60 million years ago. About 15 species remain. *Sequoia sempervirens* is now restricted to a narrow coastal strip (from extreme SW Oregon to central California) which is influenced by ocean fogs. It occurs from sea level to ~ 900 m. The spongy, fibrous reddish-brown outer bark is 8-30 cm thick and is highly resistant to fire, insects and disease. This may account for the great age of some specimens. The oldest *S. sempervirens* is ~ 2,200 years old. The Founder's Tree is the tallest tree in the world with a current height of about 112 m. The species is remarkable in being one of the few conifers that reproduce by sprouts or suckers close to the main stem. The timber, which is soft, fine-grained, and durable is among the most valuable in the world.

Walk to the fence to see:-

[18] *Eucalyptus cladocalyx*
(Myrtaceae). Common name: Sugar Gum.

Sugar gums are endemic to South Australia where they occur in three distinct areas – southern Flinders Ranges, northern Kangaroo Island and eastern Eyre Peninsula. In their natural habitats they are usually small, short-boled trees with an open crown but in the Flinders Ranges they are large stately trees that may reach 35 m in height. This specimen along the drive to Urrbrae House, has a trunk 2 m in diameter. Sugar gums flower in January and February. The avenue of sugar gums included in this walk was planted by Peter Waite in 1877. In 1960, all but a few at the western end of the drive were replaced by lemon-scented gums, *Corymbia (Eucalyptus) citriodora*. One of the distinctive features of sugar gums is their bark which is smooth and colourful due to shedding of old bark in irregular plates, resulting in patches of off-white, buff, grey and slate-blue with varying periods of weathering.

Walk S-E, ~ 90 m, from the *E. cladocalyx* past the tap to:-

[19] *Stenocarpus sinuatus*
(Proteaceae) # 788 (C7). Common name: Firewheel Tree.

The genus *Stenocarpus* comprises 25 species native to Australia and New Caledonia of which two are endemic and two native to Australia. Firewheel trees are trees of rainforest or moist monsoon forest and occur in Australia in N. WA, N. NT, E. Qld, and E. NSW. In the N. coastal districts of NSW and Qld, this species exceeds 30 m in height but in southern gardens it is a smaller, slow-growing tree that produces its distinctive wheel-shaped flowers only after about 10 years.

About 40 m E from *S. sinuatus* is:-

[20] *Cedrus deodara*

(Pinaceae) # 725 (D 7). Common name: Deodar.

This imposing and graceful tree can exceed 67 m in height and 12 m in diameter in its native Himalayan Mountains. It is distinguished from other cedars by its pendulous leading shoots and longer leaves. The sharply pointed leaves are usually dark green, glaucous or silvery but there are many cultivars with leaves that range from gold (“Aurea”) to grass-green (“Viridis”). The specific epithet and common name are Hindi, derived from the Sanskrit *devadara* (tree of the gods).

Immediately to the N is:-

[21] *Araucaria bidwillii*
(Araucariaceae) # 731 (D6). Common name: Bunya Pine.

Araucaria bidwillii is native to Queensland but more closely resembles the South American species *A. araucana* (Monkey Puzzle) than the other Australian *Araucaria* species such as *A. heterophylla* (the Norfolk Island pine) and *A. cunninghamii* (the Hoop pine). *Araucaria bidwillii* grows to a height of 44 m, has a distinctive silhouette with the crown a symmetrical dome and prickly dark green leaves clustering at the ends of whorled, horizontal, unbranched branches. The female cones grow to an enormous size (up to 30 cm long and 4 kg in weight) and each cone contains up to 150 large, ovoid seeds with a milky flesh which was relished, either raw or roasted by the Aboriginal people. The seeds were sometimes stored for a month or two by burying them near waterholes and allowing them to germinate. The right to collect seeds from a given tree was passed from father to son.

Almost opposite and right of *C. deodara* is:-

[22] *Arbutus menziesii*

(Ericaceae) # 809 (D7). Common name: Madrone.

This is an attractive, evergreen, often multi-stemmed tree bedecked in spring with dainty urn-shaped flowers in drooping panicles. A distinctive feature is the reddish-brown bark that peels in irregular sections to expose the reddish-brown inner bark. The tree is tolerant of shade and resists dry conditions once established.

Walk diagonally in a more or less S-E direction for ~ 60 m from *A. menziesii* to find:-

[23] *Fraxinus angustifolia* 'Raywood'

(Oleaceae) # 756 (D8). Common name: Claret Ash. (This tree is about halfway between the oval and the main drive).

Claret Ash is a selection made at Ray's nursery in Adelaide. Claret Ash may grow to a height of 10-15 m but this specimen is grafted on to Manna Ash, *F. ornatus*, which is a dwarfing rootstock. Its wine coloured autumn foliage makes it a splendid addition to parks and large gardens.

Continue ~ 120 m, more or less E to:-

[24] *Nuxia floribunda*

(Loganiaceae) #369 (F9). Common name: Vlier.

Vlier is an evergreen tree with a round and shapely crown. It is native to Africa, from the tropics to the Cape. In spring it produces a profusion of tiny, cream-coloured, sweet-scented flowers in dense bunches. It is reasonably fast growing and hardy and is at its best in a mild climate with plenty of moisture. *Nuxia floribunda* is relatively new to Adelaide and is well worth trying more extensively in our gardens.

Walk E for ~ 150 m towards the Waite buildings, passing another *Nuxia* on the right, to:-

[25] *Acacia peuce*

[Sadly this tree blew over in a severe storm September 2005. It is no longer there.]

(Leguminosae) # 272 (H 9). Common name: Waddy wood.

Waddy wood is an uncharacteristic wattle and is more similar in appearance to a pine tree than to other wattles. Its specific name is Greek for "pine". The phyllodes are long and narrow (approximately 1 mm wide x 40 mm long) with sharp points and are square in cross section. The flower heads are pale and globular and the pods are up to 20 x 30 cm and are twisted, papery and whitish when dry. This tree flowers between March and May. The wood is hard and resistant to termites. The tree takes its common name from the use to which the Australian Aboriginal people put the wood viz as a heavy club or waddy. *Acacia peuce* is limited in its distribution, occurring naturally in only a few sites on the edge of the Simpson Desert in the Northern Territory and Queensland.

Approximately 25 m E of *A. peuce* is:-

[26] *Aesculus californica*

(Hippocastanaceae) # 261A (I9). Common name: Californian Buckeye.

Californian Buckeye is, as its specific name indicates, endemic to California where it grows in a variety of habitats with a Mediterranean climate of hot, dry summers and cool, moist winters. It grows to 7 m, is deciduous and its flowers are in panicles about 10-20 cm long. The leaves are shed in late spring or early summer except in areas where there is plenty of water, in which case they are retained until autumn. The fruits are light brown in colour and contain 1-6 glossy brown seeds. Most flowers do not set fruit and usually about 100 seeds per annum are produced. The bark, leaves, stems, fruits and seeds are toxic. Even so, the seeds formed part of the staple diet of Californian Indians who mashed, roasted and leached the seeds to remove the toxins. The seeds were also

used in streams to stun fish. The most striking feature of the tree is its beautiful silvery stems. *Aesculus californica* is not grown extensively in Adelaide but would be well worth trying in our gardens. The leaves will not be shed until autumn if the tree is kept well-watered during the summer months.

Just visible from *A. californica*, S of it, ~ 30 m S and across Elm Avenue is:-

[27] *Brachychiton rupestris*
(Sterculiaceae) # 242 (I11). Common name: Bottle Tree. (There are two other Bottle Trees close by).

The common name of this tree is derived from the extraordinary shape of its trunk which swells to a girth of 6-10 m and is sharply constricted at the top and bottom. It contains a sweet, edible jelly-like substance, as well as abundant water, between the wood and inner bark. The tree, which can attain a height of 17 m, is found in the dry inland and in the eastern states of Australia where it is cultivated for fodder. The Aboriginal people used the inner bark and bark from the roots to make nets and ropes and ate the seeds, either raw, roasted or pounded into a flour which was eaten with honey or formed into bread. The tuberous roots were also eaten. *Brachychiton rupestris* does well in Adelaide and a few

old trees are known. It could certainly be planted more extensively in the Adelaide area.

Walk ~ 90 m towards the gate closest to the car park to find:-

[28] *Geijera parviflora*
(Rutaceae) #4 (J11). Common name: Wilga.
Geijera is an entirely Australian genus containing five species. Two of these, *G. linearifolia* and *G. parviflora*, are adapted to semi-arid conditions. *Geijera parviflora* is a beautiful tree with a dense, rounded crown. The pendulous light green foliage is readily eaten by stock which nibble the lower branches giving the tree a formal clipped appearance in the station country. Stock also eat young plants so that in some areas the species is quite rare. There is also a non-edible form which appears to be botanically identical but which stock refuse to touch. The small white or cream-coloured flowers occur from March – November. The tree is moderate to slow growing, is deep rooted and drought resistant and is an excellent tree for street planting, windbreaks, shade, honey and fodder. The Aboriginal people used the leaves as a topical anaesthetic.

Jean Bird & Jennifer Gardner

Visit the
Waite Arboretum website

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