

## Native Flora for Planting at Koala Beach

(Prepared by John Turnbull – TSC Bushland Officer, June 2008)

### Flora Species for Urban Gardens

Koala Beach can be divided into two broad vegetation communities;

- 1) Swamp sclerophyll areas which are located at lower elevations and are typified by Broad-leaved Paperbark and Swamp Oak forests. These communities occur adjacent to Sugar Glider Drive and lower sections of Sassafras Drive and Muskheart Circuit and;
- 2) Wet sclerophyll eucalypt forests on the low hills above the floodplain including Blackbutt (*Eucalyptus pilularis*) and Brushbox (*Lophostemon confertus*) open forests.

To guide landholders in the selection of appropriate species for use in suburban gardens consideration needs to be given to the slope, aspect, drainage and soil characteristics of their site as well as any existing onsite vegetation that may provide shade, shelter or competition for planted species.

South- and east-facing slopes tend to be more protected, cooler, moister and more likely to support rainforest and moisture loving species, while hill tops and north- or west-facing slopes which are more exposed to the sun and drying winds are more likely to support sclerophyll or hardier rainforest species. Low-lying areas will favour species that can tolerate prolonged water inundation or periodically wet soils.

Consideration should also be given the time that you will have to tend the garden, whether supplementary water will be required, what type of garden you are trying to create, e.g. low maintenance, bird-attracting, bush tucker, scented, etc. In addition the mature size of any species planted needs to be considered to avoid having to remove plants in the longer term; smaller, fast-growing and short-lived species can be inter-planted with slower growing or larger species as an interim measure.

Listed below is a small selection of locally endemic native species that would be suitable for planting at Koala Beach, reputable local nurseries should also be able to provide advice on what to plant where.

Common Name	Scientific Name	Habitat	Habit
<b>Tall Shrubs – Small Trees (5-15m)</b>			
Broad-leaved Lilly Pilly	<i>Acmena hemilampra</i>	Occurs in STRf & LRf; hardy in full-sun and adaptable to a range of free-draining soils	Commonly a <b>5-12m</b> bushy coastal shrub/tree (can grow to 30m); Flaky, often fissured bark, bark on twigs smooth, becoming slightly flaky with age; attractive white fruits and decorative foliage.
Red Ash	<i>Alphitonia excelsa</i>	Natural colonizer of a range of situations from warmer Rf, OF and dry woodland, often in sheltered gullies or on steep slopes of the coast and inland; Planted as hardy cover spp due to rapid growth, potential cabinet timber.	Mostly <b>15-20m</b> , some to 35m; Open crown with silver-backed leaves, buds and young stems grey to golden-brown hairy.
Rough-leaved Elm	<i>Aphananthe philippinensis</i>	In STRf and DRf, often along streams or on alluvial flats; fruits desirable to birds; appealing tree which adapts to cold and dry	Shrub or tree <b>8-20m+</b> , depending upon water availability; Dense, handsome foliage and compact tight crown with

Common Name	Scientific Name	Habitat	Habit
		sites; hardy when established.	sandpaper rough leaves.
Broad-leaved Native Gardenia	<i>Atractocarpus benthamianus</i>	Grows in STRf, WTRf and tall sclerophyll forest, north from Forster to Nambour, Qld.	Tall shrub or small tree to <b>c. 8m</b> high, young shoots pubescent; Leaves opposite or in whorls of 3 or 4; flowers white, fragrant
Grey Myrtle	<i>Backhousia myrtifolia</i>	In warmer rainforest, often close to streams and other sheltered sites; In open situations foliage is dense to the ground; Profuse flowering, hardy to cool conditions, can be slow growing at first.	<b>3-7m</b> with finely scaly bark
Weeping Bottlebrush	<i>Callistemon viminalis</i>	Common along stream banks and watercourses; often rocky areas; adaptable to full sun, most soil types and conditions, may be frost tender when young; bird attractive	Bushy <b>8-12m</b> high or smaller; bark dark, furrowed; branches generally arching/weeping covered in silky hairs when young
Brown Kurrajong	<i>Commersonia bartramia</i>	In warmer rainforest, its margins and clearings on the coast and ranges; Important regeneration able to handle exposure; with fast growth rate, while filtered shade does not inhibit plants developing beneath; Frost sensitive when very young but generally very hardy.	<b>7-8m</b> tall; Pale trunk and horizontally layered branches are attractive especially when in flower;
Forest Maple	<i>Cryptocarya rigida</i>	From coastal STRf and WTRf, especially on their margins, and in tall eucalypt forest; north from Ourimbah area.	Shrub to small tree <b>6-15m</b>
Tuckeroo	<i>Cupaniopsis anacardioides</i>	In LRF and scrub near the sea and along estuaries; Handsome small to medium shade tree or dense shrub when more exposed, seed attractive to birds; Hardy and adaptable.	To <b>10m</b> , often smaller in isolated or exposed sites; new growth shortly pubescent and pink.
Orange Boxwood	<i>Denhamia celastroides</i>	Grows in most types of rainforest and margins with wet sclerophyll forest; tolerant of moderate frosts and full sun, prefers some shade may be slow growing	Shrub or small tree to <b>7m</b> high; branchlets striate.
Corkwood	<i>Duboisia myoporoides</i>	In high-rainfall areas and on margins of STRf, WTRf, LRF and DRf and in regrowth; Hardy, fast growing and suitable for regeneration plots	<b>6-10m</b> shrubby tree, can reach 20 m high; Bark thick and corky, showy flowers.
Blueberry Ash	<i>Elaeocarpus reticulatus</i>	Mostly in gullies or along watercourses in marginal Rf areas, moist open forests	<b>2-3m</b> shrub to <b>6-8m</b> small tree; attractive small flowers followed by blue fruits; very

Common Name	Scientific Name	Habitat	Habit
		and adjacent to the ocean; From sea-level to the ranges	hardy, tolerate frost, salt air, poor soil, wind, full sun and periodic dryness.
Red Olive Plum	<i>Elaeodendron australe</i> ( <i>Cassine australis</i> )	Along the coast and ranges in coastal, inland and depauperate rainforests; Adaptable, bushy to the ground and excellent screen.	To <b>8m</b> high, dioecious; stiff, leathery leaves are dark green and glossy with toothed or scalloped margins; bright-orange-red fruit occur in clusters and hang for several months.
Guioa	<i>Guioa semiglauca</i>	Grows in warmer rainforest from the coast to the ranges, often in regrowth; versatile, fast-growing and bird attracting, useful in regeneration plots. Hardy	<b>6-10m</b> , taller on fertile sites; Common pioneer spp., may produce several trunks or branch low down; Bark smooth, grey to dark grey, often ± blotched with lichen; New growth pubescent and adult foliage distinctly grey-green on underside.
Native Frangipani	<i>Hymenosporum flavum</i>	Grows in or near rainforest or WSf on fertile soils, north from Grose Valley (near Sydney) and inland to the Liverpool Ra.	Tall shrub or small tree, <b>8-12m</b> rarely to 20 m high, occasionally partly deciduous; fragrant flowers in spring.
Foambark	<i>Jagera pseudorhus</i>	Occurs in warmer rainforests, WSf and their margins, on stream and creek banks on basaltic and alluvial soils; Full-sun and mild frost are tolerated	<b>5-10m</b> in open and up to 15m in forest, often smaller in open; Umbrella shaped crown and distinctive ferny foliage which apricot-pink flushes, most parts densely rusty-hairy.
Red Kamala	<i>Mallotus philippensis</i>	Grows on margins and within warmer rainforest; chiefly north from the Hunter R.; tough in full sun and depleted soil, useful regeneration spp.	Tree to <b>10m</b> high, fruits covered in red granular material used in dying;
Muttonwood	<i>Myrsine variabilis</i> ( <i>Rapanea variabilis</i> )	Grows on margins and within warmer rainforest; tough in full sun and depleted soil, useful regeneration spp.	Tree to <b>10m</b> high.
Large-leaved Mock-olive	<i>Notelaea longifolia</i>	From Lismore to Cape York; hardy in dry and low fertility sites; useful regeneration spp to attract native bees and flies.	To c. <b>8-9m</b> high, often with a dense crown of leathery leaves; branchlets grey or brown, usually with conspicuous white lenticels.
Scrub Turpentine	<i>Rhodamnia rubescens</i>	In STRf, WTRf, LRf, DRf and sclerophyll ecotone, common in margins and regrowth; Fruit provides valuable food source for frugivorous birds; Hardy in a wide range of soil types, habitats and temperature ranges	To <b>10m</b> high, occasionally taller; Bark reddish brown, rough, scaly and fissured; young stems densely hairy, leaves hairy underneath.
Scentless Rosewood	<i>Synoum glandulosum</i>	Widespread in warmer rainforest, north from Milton.	Small tree to <b>7m</b> high, with brown scaly bark, new growth pubescent.
Brush Cherry	<i>Syzygium australe</i>	In Rf along the E coast, almost always next to	From <b>3-30m</b> , dependent upon site, usually <10m in

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		creeks; Excellent ornamental with dense crown, shade or screen tree Adapts to most soils, full sun and some frost; may suffer from psyllid attack.	the open; with attractive flowers and fruits, new growth is reddish.
Blue Lilly Pilly	<i>Syzygium oleosum</i>	Grows in LRF, STRF, WTRf and moist open forests from Wollongong to NE Qld; Often appears as regrowth; Adaptable to soils, fast-growing,	To <b>10m</b> ; In full sun has dense, ground-hugging foliage with frequent bronze flushes of growth, with flaky bark, purple fleshy fruits and attractive foliage and form.
Water Gum	<i>Tristaniopsis laurina</i>	Grows near creeks in and around Rf and WSf; Widespread along coast and ranges; Handsome tree for screen or fill-in beneath taller spp; Handles cold, medium frost, wet soil, low fertility and full sun.	<b>5-10m</b> high but may grow to 20m; Usually shrubby tree with smooth, pale bark shedding in strips, leaves redden during cold weather
Tree Heath	<i>Trochocarpa laurina</i>	Grows in wet sclerophyll forest, warm-temperate rainforest to 800 m alt. and littoral rainforest, north from Bermagui.	Compact shrub to crooked tree to <b>13m</b> high often shorter, glabrous; bark grey to brownish black, corky, finely fissured to platy.
<b>Shrubs (&lt;6m)</b>			
Narrow-leaved Gardenia	<i>Atractocarpus chartaceus</i>	Grows in STRf and DRf, north from Richmond R. to Gladstone, Qld	Shrub to <b>c. 3m</b> high, ± pubescent.; Leaves opposite or in whorls of 3; flowers white, fragrant
Coffee Bush	<i>Breynia oblongifolia</i>	Widespread in or near warmer rainforest, also in moist areas in woodland and eucalypt forest.	Shrub to <b>3m</b> high
Broad-leaved Palm Lilly	<i>Cordyline petiolaris</i>	In warmer rainforest and WSf from coastal lowlands and ranges, north from the Nambucca River to SW of Gladstone, Qld.	Shrub to <b>5m</b> high, often sprawling and branched.
Red fruited Palm Lilly	<i>Cordyline rubra</i>	Coastal lowlands and ranges; north from Lismore to about Bundaberg. In warmer rainforest and wet sclerophyll forest.	Shrub to <b>4m</b> ; sometimes branched.
Narrow-leaved Palm Lilly	<i>Cordyline stricta</i>	On coastal lowlands and ranges north from near Bilpin (lower Blue Mtns).	Shrub to <b>5m</b> high, sometimes sprawling and branched towards base.
Glossy Laurel	<i>Cryptocarya laevigata</i>	Rf understorey shrub	To <b>5m</b> tall, Dense, dark green, glossy foliage; hardy, bushy from young age with attractive red fruits.
Copper Laurel	<i>Eupomatia laurina</i>	Widespread in or near warmer rainforest and moist eucalypt forest on the coast and lower ranges; suits a shady site.	Loose, arching shrub <b>2-5m</b> , branchlets often black.
Hovea	<i>Hovea acutifolia</i>	Grows on rainforest margins or in WSf or other damp sheltered sites.	Slender shrub to <b>c. 4m</b> high; stems and branches with a dense covering of

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			grey to rusty, curled and crinkled hairs intermixed with longer, straight hairs.
Olive Tea-tree	<i>Leptospermum liversidgei</i>	In low-lying sandy and peaty swamp coastal heath; does well in most soils that don't dry out readily and tolerates waterlogging; Sunny or semi-shaded sites suit.	To <b>4m</b> high, bark close, younger stems with a short pubescence and foliage lemon-scented;
Wild May	<i>Leptospermum polygalifolium</i>	From sandy soils, common in moist sites and along watercourses; Reliable in a range of soils and conditions, variable in form, often used for screening or windbreak; Hardy and tolerates extended wet or dry periods.	<b>1-6m x 1-3m</b> ; spreading, silky-hairy new growth, sometimes bronze;
A Tea-tree	<i>Leptospermum whitei</i>	Grows in heath in sandy, swampy coastal soils; adaptable to soils; will not tolerate drying out, tolerates full sun to semi-shade, damaged by heavy frosts.	<b>2-6m</b> high with fibrous flaking bark in reddish-brown layers, younger stems pubescent;
Narrow-leaved Orangebark	<i>Maytenus silvestris</i>	In DRf, vine thickets, open forest and moist eucalypt forest, north from Camden and the Illawarra region.	Shrub to <b>4.5m</b> high; narrow, toothed leaves and bright orange fruit with black seeds and orange surround.
White Dogwood	<i>Ozothamnus diosmifolius</i>	Grows on margins of rainforest and in heath in a variety of soils, often on ridges; widespread, north from Eden district.	Much-branched, erect shrub <b>to 5m</b> high, <b>usually c. 2m</b> high; branches with short rough hairy covering.
Narrow-leaved Geebung	<i>Persoonia linearis</i>	In sclerophyll forest or woodland on various soils; south from the Macleay R. catchment.	Erect shrub or small bushy tree <b>2-6m</b> with flaky bark, young branchlets moderately to densely hairy.
Orange Thorn	<i>Pittosporum multiflorum</i> ( <i>Citriobatus multiflorus</i> )	Grows in or near rainforest or wet sclerophyll forest, on shales or well-drained volcanic soils; provides roost site for small birds.	Rigid, much-branched <b>1-3m</b> high, sometimes straggly shrub, branches bearing numerous slender spines; stems brittle.
Rough-fruited Pittosporum	<i>Pittosporum revolutum</i>	Grows in Rf, WSf, chiefly in coastal districts; very hardy in a range of situations, including full sun and light frost	Shrub to <b>c. 3m</b> high depending upon exposure, up to 8m in Rf
Hairy Psychotria	<i>Psychotria loniceroides</i>	Grows in LRf, warmer rainforest and wet sclerophyll forest; widespread, north from Bega district.	Shrub or small tree to <b>c. 5m</b> high, usually shorter.
Banana Bush	<i>Tabernaemontana pandacaqui</i>	Grows in warmer rainforest and wet sclerophyll forest, north from Manning R.	Shrub to <b>3m</b> high, glabrous; fragrant white flowers and attractive yellow, banana-shaped fruit, seeds surrounded by red pulp
Poison Peach	<i>Trema tomentosa</i> var.	Widespread in regrowth	Shrub or small tree <b>3-6m</b>

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	<i>viridis (T. aspera)</i>	and margins of rainforest, in moist sclerophyll forest and in open rocky areas.	tall, young branches pubescent; small black fruits attractive to parrots.
Veiny Wilkiea	<i>Wilkiea heugeliana</i>	In all rainforest except CTRf; widespread on the coast and ranges, north from the Beecroft Peninsula to SE Qld; hardy in sun or shade and most soils with adequate drainage.	Bushy shrub to <b>6m</b> ; attractive black fruits on yellow receptacle; stiff leaves with toothed margin.
<b>Palms and Cycads</b>			
Bangalow Palm	<i>Archontophoenix cunninghamiana</i>	In STRf and LRF, mostly beside creeks and on wet alluvial flats, often in groves; Hardy to full sun, tolerates some cold; best planted enmasse.	<b>20–25m</b> tall and 25 cm diameter, enlarged at the base.
Shining Burrawang	<i>Lepidozamia peroffskyana</i>	In hilly country, in WSf and edges of STRf and WTRf; north from the Manning R. to Nambour, Qld. Sometimes cultivated as an ornamental, slow growing.	Thick trunk <b>0.5–7m</b> high, usually less than 3m; compound leaves 2–3 m long on mature plants; leaflets up to 200 x 10–30cm long thick and glossy; male and female cones on separate plants
Walking Stick Palm	<i>Linospadix monostachya</i>	In STRf, WTRf and occasionally CTRf, from Bulahdelah to Gympie; The stems have been used to make walking sticks. The small knob at the base of the stem being carved to form a handle.	Single stemmed palm, stems mostly <b>1.3–2m high</b> , occasionally to 5 m high, 2–3 cm diameter; Leaves divided, 50–130 cm long; flowers on a simple pendulous spike, 1–1.5 m long; bright red fruits.
Cabbage-tree Palm	<i>Livistona australis</i>	Widespread in coastal districts commonly in colonies; Grows in moist sclerophyll forest, along stream banks and often in swampy sites, and on margins of rainforest; require some early protection but hardy once established, tolerate some drying out, light frosts.	<b>20–30m</b> high (occasionally more), up to 50 cm diam., marked with annular scars and furrows;
Pineapple Zamia	<i>Macrozamia lucida</i>	In WSf and edges of STRf and WTRf north from Pottsville to Nambour, Qld; slow growing.	Unbranched palm-like shrub, stem mostly subterranean to <b>10–20 cm diameter</b> , or more; Leaves mostly 2–15 in the crown, 80–110 cm long; male and female cones on separate plants.
<b>Twiners/Scramblers</b>			
Wombat Berry	<i>Eustrephus latifolius</i>	Grows in sclerophyll forest, woodland, heath and on margins of Rf; widespread, from coastal districts and inland.	Vine with <b>stems to 6m</b> long, sometimes much branched; yellow fruit capsule opens to reveal glossy black seeds.
Scrambling Lilly	<i>Geitonoplesium cymosum</i>	Grows in or near Rf, in sclerophyll forest and woodland, widespread in	Vine with <b>stems to 8m</b> long; fruit a black globose berry.

Common Name	Scientific Name	Habitat	Habit
		coastal districts and also on the ranges.	
Purple Coral Pea	<i>Hardenbergia violacea</i>	Widespread in a variety of habitats.	Climbing or prostrate, glabrous sub-shrub; stems often to <b>2 m</b> long.
Climbing Guinea Flower	<i>Hibbertia scandens</i>	Occurs in moist sclerophyll forests, heaths and littoral forests.	Climber/sprawler with stems to <b>4m</b> long.
Morinda	<i>Morinda jasminoides</i>	Grows in rainforest and sclerophyll forest, often in gullies; widespread.	Woody climber or scrambling shrub, ± glabrous; fruit an irregularly shaped orange fleshy head.
<b>Groundcovers/Clumpers</b>			
Native Ginger	<i>Alpinia caerulea</i>	Widespread in coastal rainforest; attractive arching stems and blue fruits.	Perennial herb with stems to <b>3m</b> high.
Midgen Berry	<i>Austromyrtus dulcis</i>	Grows in heath or dry sclerophyll forest on sandy soils along coast.	Semi-prostrate spreading shrub, up to <b>0.5m</b> high, with finely flaky bark; young shoots densely hairy.
Gristle Fern	<i>Blechnum cartilagineum</i>	Widespread hardy fern found in open forest and rainforest.	Fronds erect, clustered, all ± similar, pinnate, usually <b>50–100cm</b> long, often pink when young, pale green and ± harsh when mature, segments usually alternate.
River Lily	<i>Crinum pedunculatum</i>	From shady, moist conditions under a canopy to exposed beach fronts, swamps and along stream banks; Hardy to sun, shade, poor drainage, saline influence, frost and indifferent soil.	Clumping plant with stout, sometimes branching pseudo stem to <b>45cm</b> high; fragrant flowers carried on ends of stems
Blue Flax Lilly	<i>Dianella caerulea</i>	Grows in heath to sclerophyll forest.	Perennial tufted, solitary herb to <b>0.5m</b> high.
Tall Saw-sedge	<i>Gahnia clarkei</i>	Grows on creek banks and near swampy areas in coastal districts, extending inland; attracts threatened Varied Sword-grass Brown butterflies.	Tuft forming sedge with stout stems, <b>2-2.5m</b> high, "cutting edged" leaves and golden brown flower plumes followed by reddish brown fruit.
Mat Rush	<i>Lomandra hystrix</i>	Grows amongst rocks in Rf streams, often as dense colonies; hardy but needs ample water initially, adaptable to full sun, shade, frost and variable soils; excellent stream-bank erosion inhibitor.	<b>1m</b> bushy clumps.
Long-leaved Mat-rush	<i>Lomandra longifolia</i>	From inland areas to the coast; Needs free-drainage but adaptable to most soils and locations provided they receive some sunshine, hardy to most frosts; very variable spp so select local variants for planting.	<b>1m+</b> clumps; tussocks form an important refuge for many fauna spp.
Kangaroo Grass	<i>Themeda australis</i>	Widespread in a variety of habitats.	Tufted perennial grass to <b>1.2m</b> high; often tinted red.

Common Name	Scientific Name	Habitat	Habit
Grass Tree	<i>Xanthorrhoea johnsonii</i>	Usually grows in sclerophyll forest and heath in well-drained sites; north from Singleton, widespread.	Trunk <b>0.1–5m</b> high; stem and crown usually 1; young leaves in spreading upright tuft; old leaves often strongly reflexed.
<b>Threatened Species</b>			
Beach Acronychia	<i>Acronychia imperforata</i>	Grows in lowland rainforest, usually near the coast in LRf; excellent for regeneration; May prove difficult to purchase as hard to propagate.	From <b>2-15m</b> dependent upon site conditions, salt exposure, etc., commonly <b>6-10m</b> ; Maintains an attractive lightly-leaved crown, frequently holding decorative fruits.
Toothed-leaved Palm Lily	<i>Cordyline congesta</i>	On coastal lowlands.	Shrub to <b>3m</b> high, sparsely branched; with toothed margins and clusters of orange-red fruits
Long-leaved Tuckeroo	<i>Cupaniopsis newmannii</i>	In and on the margin of WTRf and STRf from Mullumbimby to Beenleigh, also Kin Kin, Qld.	Attractive shrub to small tree <b>3-8m</b> , young shoots rusty, hairy; slender trunked, rarely branching; leaves compound with up to 24 leaflets
Rough-shelled Bush Nut	<i>Macadamia tetraphylla</i>	In STRf; Usually near the coast, confined chiefly to the Tweed and Richmond Rivers and to Mt. Tamborine.	Small to medium-sized tree <b>8-15m</b> and often as broad; new growth reddish, attractive chains of flowers.
Stinking Cryptocarya	<i>Cryptocarya foetida</i>	In LRf and occasionally STRf, usually on sandy soils, mature trees known to occur on basalt.	<b>Small to medium sized tree</b> ; young growth hairy, soon becoming glabrous; flowers sometimes with an offensive odour.
Davidson's Plum	<i>Davidsonia pruriens</i> var. <i>jerseyana</i>	Confined to STRf and WSf at low altitudes in coastal areas.	Small, slender tree <b>to 6-8m</b> may be unbranched or form a clump of stems; new growth pink, hairy; blue-black ovoid fruit make excellent jam.
Sweet Myrtle	<i>Gossia fragrantissima</i> ( <i>Austromyrtus fragrantissima</i> )	In DRf, STRf and riverine Rf of coastal districts from Lismore to Currumbin Creek.	<b>Shrub or small tree</b> , bark rough, flaky or fissured; fragrant flowers and small orange to red fruits.
Fine-leaved Tuckeroo	<i>Lepiderema pulchella</i>	In riverine, LSTRf and LRf from Brunswick River to Tallebudgera Ck.	Small tree <b>6-10m</b> , new growth pink to pale green and limp, hardening to dark green; orange fruits develop in December.

### Abbreviations

OF	- Open Forest
Rf	- Rainforest
DRf	- Dry rainforest
LRf	- Littoral rainforest
WTRf	- Warm Temperate rainforest
STRf	- Sub-Tropical rainforest
LSTRf	- Lowland Sub-Tropical rainforest
WSf	- Wet Sclerophyll forest



## Feed species for local threatened fauna

### Koala (*Phascolarctos cinereus*)

These species are large canopy trees that are unlikely to be suitable for use in residential blocks but could be utilised in public reserve areas, on larger blocks or along roadsides where appropriate. Local Koalas may also browse on or roost in other species.

Common Name	Scientific Name	Habitat
Grey Gum	<i>Eucalyptus propinqua</i>	Lower to mid slopes as part of wet sclerophyll assemblage
Tallowwood	<i>Eucalyptus microcorys</i>	Lower to upper slopes as part of wet sclerophyll assemblage
Forest Red Gum	<i>Eucalyptus tereticornis</i>	Alluvial flats and lower to mid slopes on fertile soils
Swamp Mahogany	<i>Eucalyptus robusta</i>	Low lying, swampy or periodically inundated areas

### Glossy Black Cockatoo (*Calyptorhynchus lathamii*)

Glossy blacks feed on the seeds of a range of She-oaks (*Casuarina* and *Allocasuarina*) and are dependant upon large hollow bearing eucalypts for nesting sites. The most appropriate species for domestic gardens are:

Common Name	Scientific Name	Habitat	Habit
Forest Oak	<i>Allocasuarina torulosa</i>	Upper slopes as understorey species in wet and dry open to tall open sclerophyll forest. Generally on higher-nutrient soils and in moister situations than <i>A. littoralis</i> .	Slender tree up to 10m, usually dioecious (male and female flowers on different plants).
Black She-oak	<i>Allocasuarina littoralis</i>	In sclerophyll woodland or tall heath, on sandy or poor soils; coast and adjoining tablelands.	Tree 5–15 m high, usually dioecious.

### Common Blossom Bat (*Syconycteris australis*)

Blossom bats roost in rainforest species and preferentially forage on Coast Banksia (*Banksia integrifolia*), they also utilise other flowering sclerophyll species some of which may be too large for domestic gardens, including Swamp Mahogany, Forest Red Gum, Pink Bloodwood (*Corymbia intermedia*) and Broad-leaved Paperbark (*Melaleuca quinquenervia*). Suitable feed species for suburban gardens include:

Common Name	Scientific Name	Habitat	Habit
Coast Banksia	<i>Banksia integrifolia</i>	Widespread in coastal sites and near ranges, common on consolidated sand dunes and along tidal inlets in woodland	5–25m high, according to exposure. Leaves whorled, margins entire with occasional short teeth, lower surface white-shortly hairy
Swamp Banksia	<i>Banksia robur</i>	In woodland and heath in sandy ± permanently damp sites on the coast	Shrub with several stems arising from a lignotuber, usually 1–2 m high; branchlets rusty-tomentose
Fern-leaved Banksia	<i>Banksia oblongifolia</i>	In dry sclerophyll forest to heath; widespread on the coast	Several-stemmed shrub to 3 m high with lignotuber; bark reddish to grey-brown
Wallum Banksia	<i>Banksia aemula</i>	From low sclerophyll woodland or tall shrubland (wallum) on consolidated sand dunes, also on sandy flats which are sometimes seasonally waterlogged	Bushy shrub robust tree to 8 m high; bark warty
Old Man Banksia	<i>Banksia serrata</i>	Usually in dry sclerophyll	Shrub or tree, to 16 m high in

Common Name	Scientific Name	Habitat	Habit
		forest or woodland on sandstone or consolidated sand dunes, on the coast	favourable habitats, sometimes a shrub to 3 m in coastal sites high; bark warty
Heath-leaved Banksia	<i>Banksia ericifolia</i>	From heath, dry sclerophyll forest and woodland, widespread on the coast and ranges	Tall bushy shrub or small tree to 6 m high, single-stemmed at base
Wallum Bottlebrush	<i>Callistemon pachyphyllus</i>	Grows in moist ground in Wallum heath and hind dunes	Dense straggling shrub to 1.5 m high
Willow Bottlebrush	<i>Callistemon salignus</i>	Mostly grows in low-lying river flats and damp creeks, rarely in dry areas	Large shrub or small tree 3–10 m high; bark papery and peeling

### Common Planigale (*Planigale maculata*)

Common Planigales are tiny marsupials with a body length of about 8 cm and a tail as long again. They differ from the common house mouse in having a long, pointed snout and large rounded ears. The head has a flattened appearance. Their fur is grey-brown above, sometimes with tiny white spots, and paler below (DECC 2008). Planting of specific flora species in suburban gardens is unlikely to provide useful habitat for planigales where adjacent bushland areas are in good condition. Planigales are also unlikely to nest in residential buildings.

They inhabit rainforest, eucalypt forest, heathland, marshland, grassland and rocky areas where there is surface cover, and usually close to water. They are active at night and during the day shelter in saucer-shaped nests built in crevices, hollow logs, beneath bark or under rocks. They are fierce carnivorous hunters and agile climbers, preying on insects and small vertebrates, some nearly their own size. They breed from October to January when females build a nest lined with grass, eucalypt leaves or shredded bark (DECC 2008).

To assist the survival of this species at Koala Beach a number of strategies are being implemented by Council in conjunction with the Koala Beach Wildlife Habitat Management Committee including, fox and feral cat control, protection of surrounding bushland through weed management to ensure adequate understorey diversity, maintenance of appropriate fire regimes to retain leaf litter and hollow logs, retention of adequate ground cover, especially near waterways, and protection from further development or clearing.

Residents can help this species to survive by controlling cane toads when encountered, avoid 'tidying' areas of bushland adjacent to their property, and contacting Council Officers if positive identification is required prior to rodent control where some uncertainty exists as to the target rodent's identification.

### Further Information Sources

#### Flora

***Threatened Species of the Upper North Coast of New South Wales: Flora***, NSW National Parks & Wildlife Service 2002a, NSW National Parks and Wildlife Service, Coffs Harbour, NSW.

***Australian Rainforest Plants vols I-VI***, Hugh and Nan Nicholson, Terania Rainforest Publishing.

***Rainforest Trees and Shrubs: A field guide to their identification***, G. Harden, B. McDonald and J. Williams, Gwen Harden Publishing, 2006.

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***Eucalypts and Angophoras of the North Coast, New South Wales***, C. L. Bale, Botany Department, University of New England, Armidale, NSW, 2003.

***Ocean Shores to Desert Dunes: The Native Vegetation of New South Wales and the ACT***, David Keith, Department of Environment and Conservation, NSW, July 2004.

***Tweed Vegetation Management Strategy 2004***, M.B. Kingston, J.W. Turnbull and P.W. Hall, report prepared for Tweed Shire Council, August 2004

### **Flora Websites**

Royal Botanic Gardens Sydney – photos, line drawings, etc

<http://plantnet.rbgsyd.nsw.gov.au/search/florasearch.htm>

Terania Rainforest Publishing – photos and info

<http://www.rainforestpublishing.com.au/library.html>

NSW Department of Environment and Climate Change –Threatened spp data, photos

[http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/browse\\_allspecies.aspx](http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/browse_allspecies.aspx)

### **Fauna**

***The Australian Museum Complete Book of Australian Mammals***, 1983, (ed. Ronald Strahan), Angus and Robertson.

***The Field Guide to the Mammals of Australia***, Peter Menkhorst and Frank Knight, 2004, Oxford University Press.

***Reptiles and Amphibians of Australia***, 2000, Harold G. Cogger, Chelsea Green Publishing

***Threatened Species of the Upper North Coast of New South Wales: Fauna***, NSW National Parks & Wildlife Service 2002, NSW National Parks and Wildlife Service, Coffs Harbour, NSW.

***The Field Guide to the Birds of Australia***, Graham Pizzey and Frank Knight, 1998, Angus & Robertson, Australia.

***The Slater Field Guide to Australian Birds***, Peter, Pat and Raoul Slater, 1989, Landsdowne Publishing Pty Ltd, Australia.

### **Fauna Websites**

Australian Museum online

<http://www.austmus.gov.au/>

Frogs Australia Network

[http://www.frogsaustralia.net.au/frogs/display.cfm?frog\\_id=172](http://www.frogsaustralia.net.au/frogs/display.cfm?frog_id=172)

Australian Water birds

<http://www.environment.gov.au/biodiversity/migratory/waterbirds/wetbrds.html>