
Creating habitat for urban wildlife
CITY OF SYDNEY

Acknowledgements

The Habitat Creation Guide is a resource encouraging City of Sydney residents, developers, schools, community groups and gardeners to create areas that celebrate not only the local native plants that thrive in our region, but also the habitat we can create to support our unique urban wildlife.

Contents

Pictured left: Apartment landscaped with native plants in Waterloo

Creating habitat for urban wildlife

We live in a spectacular and unique part of Sydney. The inner city is home to around 365 local native plants and 90 different native bird species.

Let's make urban wildlife a priority

While some animals have adapted well to urbanisation, many have disappeared or are now only found in small numbers. These have been identified as 'priority' species in the City's Urban Ecology Strategic Action Plan. They include frogs, small birds, lizards, owls, microbats and other small mammals such as the bandicoot. This guide focuses on these priority species, along with native bees, butterflies and other invertebrates.

Habitat 'stepping stones' help animals move through our city

All of us have the opportunity to make sure our homes and lifestyles can support native animals and plants. A simple way to do this is to create 'habitat gardens' – in gardens, courtyards or on balconies.

Each habitat garden helps create a network that increases opportunities for wildlife to move across the city. Picture them as stepping stones, such as a potted plant on your balcony helping native bees to travel across the city.

Boost your quality of life

In addition to helping our native wildlife, these gardens will also help you maintain a connection with nature. Being close to nature lowers stress, boosts immunity, increases creativity, improves cognitive function and contributes positively to your quality of life.

Many native animals perform useful services. Eastern Blue-tongue Lizards eat snails and slugs, while ladybeetles eat aphids. Native bees and butterflies are excellent pollinators.

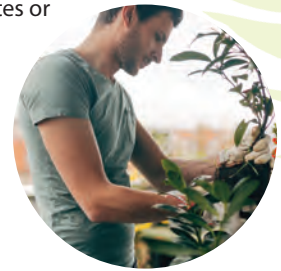
Pictured left: Rooftop garden in Chippendale

How to use this guide

The first part of this guide is full of practical tips to help you with greening, landscaping or gardening projects with a focus on creating habitat for our native wildlife.
It looks at different opportunities that you can try on your balcony or in your backyard or small courtyard.

Even the smallest garden can provide habitat, especially if it has local native plants. Learn about some basic plant species that are hardy, easy to grow and will help get you started on improving your area. You will find the comprehensive Planting Guide with recommended plant species as part of this booklet.
We have included illustrations and images from the local area to inspire you when planning your own urban refuge for our local wildlife. If you'd like some advice from Council about your plans or to see more examples, please don't hesitate to contact the Urban Ecology Coordinator at the City of Sydney Council – that's what we're here for!

NOTE: The guide is intended for use by residents of the City of Sydney area. It is not designed to inform the revegetation of natural areas such as Bushcare or Landcare sites or riparian zones, such as land alongside creeks, streams, gullies, rivers and wetlands.



I have a cat or a dog, what can I do?

Cats are very efficient predators of small birds and other native animals and dogs can be a deterrent.

If you have a cat, fit bells to their collar or put a colourful scrunchie around their neck; both of these methods will alert birds from a distance. Keep them inside at night or consider having them as indoor cats only.

If you have a dog, keep them inside at night and consider restricting their access to only part of your garden (for example by fencing off a small area or putting in different levels that they can't access).

What about herbicides or pesticides?

It's important to avoid using chemical herbicides and pesticides – particularly insecticides – in and around your habitat garden, including lawn areas, because these will kill the insects and other invertebrates that our local wildlife feed on.

Pictured left: Melaleuca hypericifolia

What to consider before planning a habitat garden

Where can I plant a habitat garden?

Balconies, courtyards, backyards, entrances, common areas and verges are all places suitable to plant a habitat garden.

What are the conditions like?

Sunny and windy?

Consider planting a screen to reduce the impact of strong winds, which would reduce your options of what to plant. Great screens that also attract pollinators include: Golden Guinea Vine (Hibbertia scandens)☘, Passionfruit, Bougainvillea ☘.

Sunny and hot?

Again, consider a screen to help you create a cooler microclimate that other plants can do well in. Vines or shrubs would be a good choice. Refer to the Planting Guide for some ideas.

Shady?

Consider a row of shade-loving plants like:
Sweet Morinda (Morinda jasminoides)☘, Star Jasmine (Trachelospermum jasminoides)☘.

☘ Find me in the Planting Guide

What plants do I have already?

Don't think you need to clear away existing plants to create habitat gardens. Existing plants can easily be incorporated into your plans, and more diversity can help. However, you'll need to make sure that existing plants don't create too much shade for other plants to grow. This may change your selections. The Planting Guide in this booklet shows the sun or shade conditions new habitat plants flourish in. If you don't think your garden needs more plants, think about a small frog pond or bird bath.

Pictured left: Small courtyard habitat garden in Glebe;
Above: Carpenter Bee

Attracting frogs: building a pond

Suitable for small courtyards, backyards and common areas – but not for balconies!

Six frog species are currently known to live in the City of Sydney area: the Striped Marsh Frog, the Common Eastern Froglet, the Peron's Tree Frog, the Dart Frog, the Eastern Dwarf Tree Frog, and a threatened species, the Green and Golden Bell Frog.

Ponds are the best option of habitat for frogs, and it's easy to provide one that's suitable. But ponds also provide great habitat for dragonflies and lizards such as the Eastern Water Skink. Small birds are also likely to visit your pond for a drink or bath.

If it's not easy to install a pond, you can attract frogs by providing a suitable habitat for foraging and shelter.

It's best to source native aquatic plants, grasses and sedges from specialist suppliers.

FROGS

What to consider when designing your pond

Where should I put my pond?

- Find a spot in a partly sunny and partly shady position, away from trees. Frogs like to bask in the sun and most aquatic plants also need sunshine. Some shade will help to keep the water temperature down on really hot days.

How big should the pond be and what shape?

- The bigger the better. Large ponds (at least 1500mm diameter) will attract a range of different frog species.
- The Striped Marsh Frog and Common Eastern Froglet will like ponds of any size.
- Choose a size that works for the area you have. We've seen novel ponds that are 1m in length and 20cm wide!
- Your pond can be any shape: rectangular, jellybean-shaped or round. The frogs won't care, so just choose one that best suits your space.

If you have a swimming pool, a fantastic alternative to installing a frog pond is to convert your pool into a pond. This will save you money on energy bills! Check out more information from Ku-ring-gai Council's successful program called Pool to Pond.

How deep should my pond be?

- Make sure the sides are gently sloping so that frogs can climb in and out.
- Consider an overflow point in case the pond floods during heavy rain.
- Both shallow and deeper sections are ideal.
- Try to keep the deepest point less than 300mm, as ponds deeper than this require development approval from the City, as well as pool fencing.

How do I keep water in the pond?

- To hold water, a pond needs to be lined. There are lots of options for pond liners – the most reliable and easiest to install are rigid shell ponds, or ponds with EPDM or butyl liner sheets.
- Rigid shells usually have steep sides, so if you're using one, put in some rock steps or place a tree branch in the pond to help frogs climb in and out.
- If using a liner sheet, first put in a soft layer of sand or even carpet underfelt to prevent the liner coming into contact with sharp rocks or anything similar that could pierce it.

Pictured right: Common Eastern Froglet

What do I put in my pond?

Plants

- It's important to install plants in your pond. Local native plants are best. Reeds and water lilies are great for inside the pond. Frogs will lay their eggs among them and use them for basking and foraging.
- Some suggestions include: Common Water-plantain (Alisma plantago-aquatica)✤, Frogsmouth (Philydrum lanuginosum)✤ and Water Ribbons (Triglochin procera)✤. Check out the Planting Guide if you want to explore other plants.
- Ideally, create clumps of at least two different reed species along with at least one submerged species in the pond.
- You can place these plants in pots, provided they are large enough to give the plants room to grow.
- Your plants will spread, but it's important to maintain some open space in your pond so you may have to cut them back from time to time. Just snip them off below the water level at the end of winter.

Sand

- Add at least 20mm of clean river sand to the bottom of your pond. Over time, this will contribute to the habitat as it becomes home to a variety of microorganisms that help create a healthy aquatic ecosystem. It will also help your aquatic plants to spread from their pots.

Around the pond

- Find some rocks such as sandstone boulders, pavers, or bricks to place around the edge of the pond. The frogs will bask on them and shelter beneath them during the colder months. Place them in piles as shown in the photo on page 13. The rocks will also assist in anchoring the edges of the pond.
- Plant grasses and sedges around the pond. You will need at least two species of long grasses or sedges planted very densely (6 to 8 plants/m^2).

Try Blady Grass (Imperata cylindrica)✤ and Blue Flax Lily (Dianella caerulea)✤. These look good with Knobby Club Rush (Ficinia nodosa) and Soft Rush (Juncus usitatus)✤.

If you're a renter or don't want standing water in your garden, densely planted long grasses and sedges can still provide a good foraging and sheltering habitat for frogs.

I've got the liner and the plants. Now what?

- It's time to fill your pond. You can use tap water, but as the chlorine or chloramine often kills tadpoles, it's a good idea to neutralise it by adding water conditioner. However, for the first fill, it won't be necessary to do this, as the chlorine should dissipate after 24 hours and it's unlikely to attract frogs in this short time.

Other things to consider for your frogs

- Having a low, dim garden light nearby, such as a small solar-powered one, will help attract insects for frogs to eat. It will also help you see the frogs in the evening.
- Please don't collect frogs, tadpoles or frog eggs from another location to put them in your pond – it's illegal and may result in the spread of disease.
- Be patient and the frogs will come. Prepare to be amazed!

It's good to change some of the pond water occasionally to keep it clean and healthy. About 30% at a time is a good measure, but don't change more than that on the same day.

Pictured left: Eastern Dwarf Tree Frog; Right: Frog ponds for small spaces

Attracting small birds: adding dense shrubs

Suitable for small courtyards, backyards, common areas and low balconies

The City had 12 recorded small bird species at last count in 2017. These included, in low numbers, the Superb Fairy-wren, New Holland Honeyeater, Silvereye, Spotted Pardalote, Rufous Fantail, Red-browed Finch, Fairy Martin, Golden-headed Cisticola and when migrating, the White-plumed Honeyeater.

Many small birds are vibrantly coloured and have lovely calls, so they can make a very appealing addition to your garden. They are also great at controlling insect pests and assisting with pollination and seed dispersal. Many small bird species, including the Grey Dantail, Red-browed Finch, Spotted Pardalote and White-browed Scrubwrenare still common in large bushland areas around Sydney.

SMALL BIRDS

If we create the right habitat for them, it is possible that some of the species that have disappeared from the city will recolonise the area.

Small birds need dense shrubs in which to find shelter and food (which, depending on the species, comprises insects, nectar or seeds). By incorporating dense shrub vegetation in your garden, you can assist small birds to survive in Sydney, and hopefully to once again become more widespread. You don't need a big backyard to create a small amount of habitat. You could also work together with your neighbours to develop habitats.

Where can I plant suitable shrubs?

- It's important to first consider the characteristics of your space. Does it receive much sun, or is it mostly shaded? What is the soil type? Are there damp areas? Thinking about these characteristics will help you choose the most suitable plants for your space.

But I live in an apartment, what can I do?

- If you have a balcony and live on the third floor or lower, you could definitely try attracting birds. By greening your balcony, you'll attract insects that some of these small birds like to eat – it just might take them longer to visit than if you had a yard. But you can be confident that you're improving the local environment for them.

- Again, think about the characteristics of your space – Does it get a lot of sun? Is it shady? Is it windy? Knowing this will help you choose the most appropriate plants.

Pictured top: Silvereye; Bottom: Golden-headed Cisticola

Is there a special way to design and arrange the plants to attract birds?

- It's recommended that you plant shrubs at a density of approximately 1 to 2 plants/m^2, while native grasses, sedges, herbs and groundcovers, vines/scramblers and ferns should be planted more densely, at 6 to 8 plants/m^2. Planting at this density will increase the speed at which your garden develops as a valuable habitat and will also help to minimise weed invasion.
- It's a good idea both in terms of small bird habitat and garden aesthetics to plant several of the same plant species together in 'clumps'. This is particularly recommended for grasses, groundcovers and ferns.
- Your small bird habitat garden may have a more natural appearance compared to traditional gardens, but it doesn't need to look messy. Many native plants have very attractive foliage and produce lovely flowers.

- Most native shrubs respond well to pruning so you can shape them to create a more formal-looking garden. Pruning also encourages denser growth, which makes for a better habitat. Several species, such as Coastal Rosemary (Westringia fruticosa) and the non-native Plumbago , can be shaped into hedges that provide great screening as well as habitat. Vines are also excellent for screening – you can grow them over a fence for example – as well for providing great habitat and a proliferation of flowers in the spring.

Do small birds like any particular flowers?

- Choose plants that have small flowers that only small birds will be able to get their beaks into.
- Plants that produce large flowers are likely to encourage larger, aggressive nectar-feeding birds like the Noisy Miner and Rainbow Lorikeet that tend to chase away small birds like the Superb Fairy-wren and New Holland Honeyeater. For example, avoid large-flowering Grevillea hybrids that are very common in nurseries (and often marketed as 'bird attracting'). Instead, choose small-flowering Grevilleas, such as the Pink Spider Flower (Grevillea sericea) and Red Spider Flower (Grevillea speciosa), or any of the other species in the Planting Guide.

What about fruit for small birds?

- Avoid planting fruiting plants, or at least keep them to a minimum. Plants that produce soft, fleshy fruit are also likely to encourage large, aggressive birds – particularly the Pied Currawong, which is a predator to other birds.
- Some species of fruiting plants, including Blueberry Ash (Elaeocarpus reticulatus) and Lilly Pilly (Acmena smithii), are included in the Planting Guide, as they are very reliable and well-suited to shady environments where many other plants struggle.

How many different types of plants can I use?

- It's good to choose a variety of shrubs that have different types of foliage and small flowers.
- Shrubs with spiky leaves, such as Silky Hakea (Hakea sericea), will provide protection for small birds.
- It's also important to include shrubs with softer leaves, such as Sunshine Wattle (Acacia longifolia) or Large-leaf Hop Bush (Dodonaea triquetra), which are a good food source.
- Try to include some shrubs that branch from the ground as well, such as Coastal Rosemary (Westringia fruticosa), in addition to shrubs that branch from higher up the main stem or trunk.

Pictured left: Superb Fairy-wren; Red-browed Finch;
Above right: New Holland Honeyeater

I don't really like native plants. Can I use other plants?

- There are some non-native plants listed in the Planting Guide that many small birds are often attracted to. If you remember the principles above, you will be heading in the right direction.
- You can also consider features at ground level in your garden like rocks and logs, and let leaf litter accumulate there. Adding compost and mulch will also be beneficial. Small birds will enjoy foraging around for insects and other invertebrates.

If I can't garden, what else can I do?

Put in a birdbath. Place it somewhere exposed so that birds can keep an eye out for danger, but keep it close to dense understorey vegetation.

Some things to remember

Can I feed the birds in my garden?

The birds that many people feed in Sydney are usually very common and do not need our help. They include Rainbow Lorikeets, Sulphur-crested Cockatoos, Pied Currawongs, and introduced birds like the Common Myna. Some of these birds are aggressive towards, or prey on, small birds, which will flee if these larger birds are hanging around your garden.

Many of the foods that people feed birds, especially fatty meat, bread, sunflower seeds and mixes of honey and water, are very bad for them. It's far better to create a garden that provides them with natural food.

I have a cat or a dog, what can I do?

Read more about pets and your habitat garden on page 7.

What about herbicides or pesticides

Avoid using them in and around your habitat garden. Read more on page 7.

Pictured above: A small birdbath;
Right: Example of habitat gardening in a small space

Did you know?

We have birds that visit Sydney at only certain times of the year. These can either be migratory or vagrants. Migratory birds are those that are moving from breeding or feeding grounds and can be seen passing through Sydney at various times. A bird is considered a vagrant if it is found outside its expected range. They can also be called accidental birds. Regardless, they can cause great excitement in the birding world.

Examples of migratory birds seen in Sydney are the Yellow-faced and White-naped Honeyeaters. These birds are known for their great autumn migration. Each autumn they are seen going north from their range in Victoria to their winter feeding grounds in northern New South Wales and Queensland. We've spotted them in Glebe and the Rocks in previous years. Then there are the migratory birds coming from Papua New Guinea such as the Dollarbird that was last spotted in Sydney Park. And there is the well-known call of summer with the arrival of the Channel-billed Cuckoo that migrates from New Guinea and Indonesia. We are also lucky to see some wetland migratory birds. We will often see the Latham's Snipe that comes all the way from Japan to Australia and is seen stopping off at Sydney Park on its way south in November, and then when it heads back home to Japan in March.

Attracting lizards: sun-basking and shelter

Suitable for small courtyards, backyards and common areas

Nine lizard species are currently found in Sydney. Of these, only three small skinks – the Wall Skink, the Dark-flecked Garden Sunskink and the Pale-flecked Garden Sunskink, which are the little brown lizards you've probably noticed in your garden or in parks around the city – are very common.

Urban gardens can provide a valuable habitat for lizards, and they in return play a useful role in controlling garden pests – for example, Eastern Blue-tongues love to eat garden snails and slugs. They and several other lizards readily inhabit urban backyards in Sydney if there is suitable habitat for them.

Lizards, like frogs, don't produce their own body heat, and rely on the warmth of their surroundings to raise their body temperature. They are therefore most active during the warmer months, when they bask in the sun

lizards

in the morning – often on rocks, pathways or lawns – before foraging for food later in the day. At night, and in winter, they hide away.

The most important habitat features for lizards are sites for shelter and basking. It's easy to provide these – just follow the guidelines below, which also outline how to provide suitable foraging habitat.

What rocks do lizards love?

Provide clusters of rocks in full sun for basking. Rock-retaining walls, rockeries and other rock features in your garden can provide great lizard habitat, particularly if you use sandstone, which is the natural habitat of many lizards around Sydney. Position them in an area that gets a lot of sun.

When constructing a rock retaining-wall, minimising the use of mortar will create many crevices. A wall like this is like an apartment block for lizards such as the Bar-sided Skink. When they find a crevice to their liking, they'll take up residence in it, and you'll often be able to see them poking their heads out or basking just outside it.

What other features can I offer lizards?

Provide hollow logs, boulders, leaf litter and bark for refuge from predators and a place to hibernate in winter. Fallen branches, piles of bricks, and even pieces of plywood, roofing tin and terracotta roof tiles will make lizards happy.

PVC pipe of about 100mm diameter, laid on the ground, is perfect for Eastern Blue-tongues, and they'll readily shelter inside it. These features may not necessarily look attractive in your garden but can easily be concealed among dense understorey plants.

Note: When you're creating habitat for reptiles, be aware you may also be making a nice place for other critters such as spiders, including Redbacks. While poisonous, these spiders are often shy. They're also great food for other spiders such as the Daddy-long-legs.

It's a spider-eat-spider world! In the City of Sydney area, it's a very rare sight to see Funnel-web Spiders or snakes, but it's always good to keep an eye out for them, and another good reason to encourage kookaburras to visit your 'hood.

Pictured left: Rock retaining wall; Above: Eastern Water Dragon

Do lizards prefer certain plants?

It's important to provide some dense understorey plants, particularly long grasses and/or sedges, around or close to your lizard shelter and basking sites. This will give them a protected area in which to forage. It's best to use a few different, preferably native species.

Ideally, create clumps of two or more different grass or sedge species, planted very densely (6 to 8 plants/m^2). Long grasses that spread via rhizomes as well as seed are particularly recommended – these include Blady Grass (Imperata cylindrical) ✤ and Blue Flax Lily (Dianella caerulea) ✤. Ficinia Nodosa ✤ is a robust and attractive sedge that is also highly recommended.

What about compost and mulch?

Adding compost and mulch to your garden, and allowing leaf litter to accumulate, will increase foraging opportunities for lizards, as it will provide habitat for the invertebrates on which they feed.

What else do I have to think of?

- Take care when mowing long grass! Most lizards will run away from the lawnmower, but Eastern Blue-tongues will sometimes stay put and hide in the grass. Check the area carefully before you mow and encourage any lizards you find to move away.
- Provide access to shallow water for drinking, for example in a shallow pot plant saucer.
- Don't capture lizards from urban parks or the bush to release in your garden – it's illegal and they probably won't stick around anyway. If you provide the right habitat for them, they'll find you!

I have a cat or a dog, what can I do?

Read more about pets and your habitat garden on page 7.

What about herbicides or pesticides?

Avoid using them in and around your habitat garden. Read more on page 7.

Pictured left: Rock piles like this are ideal basking sites for lizards

Did you know?

One small species, the Gully Skink, has a very limited distribution in Sydney, where it is only found in a few sites in the Eastern Suburbs, including Rushcutters Bay, Green Square and on the North Shore.

Most of the other lizards found in Sydney are larger species such as the Eastern Blue-tongue, Eastern Water Skink, Bar-sided Skink and Eastern Water Dragon. They are all fairly common in bushland around Sydney, but their presence has declined in the city.

Attracting native bees: pollinators at work

Suitable for small courtyards, backyards, common areas and balconies

You know what the European honeybee looks like. It's the famous bee that produces most of the honey we eat, and is an important pollinator of many crops, fruits and vegetables. As its name suggests, this species was introduced to Australia. But there are over 1,500 species of native bees in Australia, and they play an important role in pollinating our native plants, as well as fruits and vegetables including citrus fruits, watermelon and avocado, macadamia and mango trees.

Native Bees

Blue-banded, Teddy Bear or Sugarbag: meet our native bees

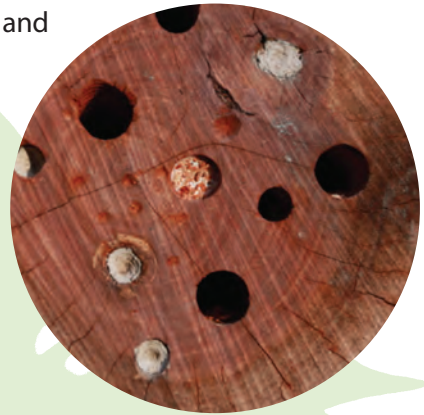
About 200 native bee species are found in the Sydney region. Almost all are solitary, and nest in small holes in the ground, old mortar, mud bricks, timber, hollow stems, or in old borer holes. Although solitary, many will often nest together in one place, with each female in a separate nest. Solitary native bees found in Sydney include the Blue-banded Bee, Teddy Bear Bee and the Resin Bee. Most native bees are too small to sting, and the others are not aggressive the way European honeybees are – although if you get too close or bother them, they will sting you!

Only one native bee species in Sydney – the Sugarbag Bee, sometimes referred to as the Bush Bee – lives in hives in which it stores honey and pollen. It is very small, and is stingless, unlike the other solitary native bees. About 6,000 to 10,000 Sugarbag Bees live in each hive. They produce delicious honey, but each hive only produces about 500ml per year in Sydney's climate.

You can attract native bees to your space by planting a variety of native shrubs, grasses and groundcovers as well as establishing fruit and vegetable gardens. The Planting Guide indicates plants that are particularly attractive to native bees.

How do I create a nest for native bees?

- It's very simple to create artificial nests for Blue-banded Bees and Resin Bees.
- Blue-banded Bees will nest in nest blocks or rammed earth bricks that are placed in a sunny position, preferably with some protection from the weather.
- Resin Bees will nest in holes drilled in blocks of hardwood that are placed in a sheltered position. Check out the links on this page for further instructions.
- Note that it may take some time – two or more seasons – for the bees to take up residence. Your artificial nests are likely to provide habitat for a range of other interesting invertebrates in addition to native bees.
- Refer to the Aussie Bee and Bees Business websites for more detailed instructions on how to make these shelters.



Pictured left: Native Blue-banded Bee;
Above: Example of nest box holes in hardwood for native solitary bees

I'm interested in owning a native stingless beehive, where do I start?

It's very easy to keep a Sugarbag beehive. Sugarbag Bees aren't affected by the pests and diseases that are devastating European honeybees around the world, and the hives are virtually maintenance free. It's really interesting to watch these little bees flying around your garden, visiting your plants and carrying brightly coloured pollen back to the hive.

Refer to www.aussiebee.com.au for details of hive suppliers and further information on how to care for your hive, including how to access the honey. This can be quite disruptive to the bees though!

How do I find out more?

Native bee workshops are held periodically around Sydney.

Any workshops hosted by the City of Sydney will be advertised on the What's On website (whatson.sydney). Workshops and seminars provide great opportunities to learn more about various native bee species, how to build artificial nest sites for solitary species, and how to care for Sugarbag beehives.

Attracting butterflies: plant a colourful nectar bar

Suitable for small courtyards, backyards, common areas and balconies

Of the approximately 400 butterfly species in Australia, over 100 are found in the Sydney region, including the Common Jezebel, Australian Painted Lady, Yellow Admiral, Citrus Swallowtail, Zebra Blue, Splendid Ochre, Blue Triangle and Monarch. The inner city also supports the only known colony of the Pearl White Butterfly in the entire Sydney region – it's been sighted in the Royal Botanic Gardens and Hyde Park, in connection with rare rainforest trees planted there.

Most butterflies feed on the nectar of flowering plants. They also need plants on which the females can lay eggs and on which the caterpillars, or larvae, can feed when they hatch.

BUTTERFLIES

The larvae of many butterfly species will only feed on one or a small number of particular plant species – often native grasses, peas and daisies.

The larvae of skipper butterflies feed on Lomandra as well as Common Couch ✤, Pencilled Blue larvae feed on Wisteria ✤, Zebra Blue larvae feed on Plumbago ✤, Citrus Swallowtail larvae feed on various citrus species, and Blue Triangle eggs. Some butterfly larvae have been known to feed on Camphor Laurel and avocado trees.

These examples illustrate how some butterflies have adapted to feed on introduced plant species in addition to the native species with which they've evolved. This means that you don't have to have an entirely native garden to attract them.

Most butterflies require warm conditions to fly, and therefore prefer sunny habitats. They often bask in the sun. Butterflies like some moisture in the form of surface water, moist soils or mud to absorb minerals.

How can I support butterflies in my garden?

✤ Find me in the Planting Guide

The most important plants to sustain butterfly populations in your garden are those that provide food for their larvae. The Planting Guide indicates both native and introduced species that are known food sources for butterfly larvae, as well as flowers to attract butterflies. It also indicates the colour of most flowers in the guide.

Butterflies in Sydney like to feed on the nectar of colourful flowers, such as blue, purple, red, orange, yellow, cream and white flowers. Choose a variety of colourful plants with nectar-producing flowers. If possible, plant several of each of the suitable species together to make it easier for butterflies to find them.

Do butterflies need water?

Maintaining a sunny, open area in your garden will make it more attractive to butterflies, because they need warm conditions to fly. Many butterflies are also attracted to water. If you don't have a frog pond, bird bath or other water feature, even a small dish of muddy water in a sunny position will be likely to attract them.

Is there anything I should avoid doing?

It's very important to avoid using chemical herbicides and pesticides – particularly insecticides – in and around your butterfly habitat, as these will kill both adult butterflies and their larvae.

Pictured left: Blue Triangle Butterfly; Australian Painted Lady Butterfly

Did you know?

A bee survey conducted by the University of Sydney across 14 community gardens in the City in 2014 documented 19 bee species.

The survey found that on average, gardens supported 6 bee species. This diversity of bee species is similar to less urbanised areas such as Ku-ring-gai Council! This shows just how important a small garden can be in an urban environment.

The study concluded that if bee-attracting flowers are planted, the bees will follow. It found that African blue basil is an excellent plant that continuously provides nectar and pollen for foraging bees.

If you're really interested in how to design your garden for bees, check out the Planting Guide but also this excellent and detailed guide to bee attractive flowers: www.agrifutures.com.au/bee-friendly (free PDF download).

Attracting other beneficial insects and invertebrates

Suitable for small courtyards, backyards, common areas and balconies

In addition to butterflies and bees, there are literally thousands (if not millions) of other insects and invertebrates inhabiting almost any garden, no matter how small. All of them play an important role in keeping your garden and the local environment healthy.

The words 'insect' or 'invertebrate' may at first make you think of flies, cockroaches, mosquitoes and slugs. But there are many, many more species than those, and the vast majority are beneficial to your garden. Insects provide food for other, larger species such as frogs, small birds and lizards, and contribute to pollination, soil fertility and soil aeration. Many insects are also incredibly interesting and, like butterflies, have fascinating life cycles, with a larval stage that looks very different from the adult. If you look closely, many of them are truly beautiful – think of dragonflies, ladybeetles and some cicadas with their stunning colours.

insects

Become an insect connoisseur

Because they're usually small, invertebrates are not always easy to see – but if you keep an eye out, you'll be amazed at how many species you find in your garden and what you can discover about them. Many invertebrates are yet to be identified, even in urban areas like Sydney.
And they're not all small – stick insects can grow up to 25 centimetres in length!

Your existing garden is already likely to support a diverse array of invertebrates. Take some time to have a close look and see what you can find.

What is an invertebrate?
An animal without a backbone.

Pictured above: Blue Dasher Dragonfly; Right: Cicada; Far right: Attracting insects with a green wall at Harold Park, Forest Lodge

How do I keep my invertebrates happy?

You can encourage a wide range of invertebrates to live in your garden by following any or all of the habitat creation tips already outlined in this guide. Creating habitat for any of these species will also create great habitat for invertebrates.

Other tips

- Compost and mulch: Adding compost and mulch to your garden, and allowing leaf litter to accumulate, will contribute to habitat for worms and many other invertebrates.
- Herbs: Ladybeetles like garden herbs such as coriander, dill and fennel, so establishing a herb garden is a good way to attract them while also providing you with fresh herbs for your cooking.
- Avoid chemical herbicides and pesticides: Avoid using chemical herbicides and pesticides – particularly insecticides – in your garden. They are lethal to many insects. Try companion planting or attracting natural predators instead.

Planting Guide

About this list of plants

The plants in this guide will help you create habitat for specific fauna species. Most of the plants are native to this area, but some non-native species are included.

The list is a starting point for you. Over time you'll learn what else is appropriate for your space and for creating urban habitat.

You'll find most of them in general retail nurseries and specialist native nurseries. A list of specialist native nurseries is at the end of this guide – you can order over the phone or online from some of them.

If a species isn't available, just order it in – you'll help increase the diversity and supply in your local nursery.

Pictured left: Habitat gardening outside a residence in Waterloo

Choosing your plants

Plant heights may vary

The heights specified are the maximum the plant would reach under natural conditions over many years. In the restricted spaces and modified soils of many urban gardens, most plants will not reach these heights. Growth of some small trees and most shrubs can also be restricted by pruning.

Every site is different

Most of the species are robust and should grow well in the specified soil and light conditions. But every site is different, and there may be some trial and error in finding out the plants that best suit your garden. The amount of shade and the quality of the soil will affect how the plants grow.

Choose lots of variety. Using a wide variety of species will increase the plants, resilience to pests, disease, and other potential impacts of climate change.

Adding new plants from time to time will increase diversity and compensate for any plant losses, especially for short-lived species. For example, Wattles (Acacia) are fast growing but short-lived.

Planting and maintenance tips

Before planting

- Dig a hole and ensure it is deeper than the tube or pot your plant comes in.
- Place half a handful of pre-soaked water crystals into the hole and mix these thoroughly into soil – these will help in dry conditions.
- Release the plant from the tube or pot by holding it upside down. Tap the bottom while holding the soil in place, in case the roots are not properly developed.
- Place the plant in the hole and backfill it, pressing the soil firmly around its roots to prevent air pockets from forming.
- Spread mulch around the plant to stimulate growth. Use aged mulch to avoid losing nitrogen from the soil.
- Water immediately.

After planting

- Water once a week for six weeks after planting. You can water more often if you are using pots or planter boxes, and in windy or hot weather. While many native plants tolerate dry periods, you should water them occasionally, particularly in hot weather.
- Apply slow-release native fertiliser in warmer months only. Avoid using those that are high in phosphate, such as blood and bone fertilisers.

Guiding trees and vines

- Tie tree saplings to stakes to help guide growth.
- Vines need training to cover walls, fences or trellises – unless you prefer them to scramble across the ground.

Pruning

- Some small trees and most shrubs respond well to light pruning, best done at the end of winter. Pruning encourages denser growth and prevents your shrubs looking straggly. You can also shape the plant the way you want it.
- Cut back grasses to around 10cm from their base after they seed.
- Cut back dead foliage from reeds to at or just below water level after summer. Foliage usually dies off in winter.

Habitat value

On the following tables, look for these icons to see which animals the suggested plants attract or support.

- Beneficial insects & invertebrates
- Frogs
- Butterfly larvae
- Butterflies
- Native bees
- Possums
- Small birds
- Lizards


1 Sydney Red Gum


2 Cabbage Tree Palm


3 Prickly-leaved Paperbark


4 Broad–leaved Paperbark


5 Lilly Pilly


6 Turpentine


7 Early Green Wattle


8 Parramatta Wattle


9 Forest Oak


10 Dwarf Apple

Trees

	Plant name	Height (metres)	Flower colour/other physical features	Flowering time	Habitat value	Soil type	Position	Tolerates moisture	Other attributes
1	Sydney Red Gum Angophora costata	15–25	white flowers; pinkish bark; iconic Sydney tree commonly seen around harbour foreshore	Nov – Dec	 hollows for birds & possums	sand	sun		
2	Cabbage Tree Palm Livistona australis	20–25	red fruit	Dec – Feb	dead fronds provide microbat roosts	any	sun or shade	•	salt and wind tolerant, prefers moist soil but will cope in dry
3	Prickly-leaved Paperbark Melaleuca styphelioides	10–20	white flowers; prickly leaves	Dec – Feb		any	sun or dappled light	•	provides dense shade cover, possible to grow shade-tolerant lawn beneath it
4	Broad-leaved Paperbark Melaleuca quinquenervia	10–20	white flowers	Mar – Jul		any	sun or dappled light	•	can develop buttressed roots when mature
5	Lilly Pilly Syzygium smithii	10–20	cream-white flowers; white to maroon fruit; pinkish-red new foliage	Nov – Feb	aggressive birds (currawongs)	any	sun or shade	•	many different cultivar varieties available, e.g. Firescreen, Hedgemaster; good hedge plant; responds well to light pruning; prefers moist soil but will cope in dry
6	Turpentine Syncarpia glomulifera	15–20	cream-yellow flowers; distinctive woody fruit; distinctive stringy bark	Oct – Dec	 frogmouths & owls	any	sun or dappled light		dense leaf cover can inhibit growth of plants beneath it
7	Early Green Wattle Acacia decurrens	5–15	golden-yellow flowers	Jul – Nov		any	sun		very hardy, fast growing, nitrogen fixing, lives longer than other Acacia species (up to 20 years)
8	Parramatta Wattle Acacia parramattensis	5–15	pale-bright yellow flowers	Nov – Feb		any	sun		very hardy, fast growing, nitrogen fixing, lives longer than other Acacia species (up to 20 years)
9	Forest Oak Allocasuarina torulosa	15	woody cone, drooping foliage	Mar – May	black cockatoos		sun		
10	Dwarf Apple Angophora hispida	4–7	cream flowers, rarely grows tallller than 4m	Nov – Jan		sand	sun		

Grey Myrtle

Old Man Banksia

Coast Banksia

Black Wattle

Broad-leaved Scribbly Gum

Swamp Paperbark

Flax-leaved Paperbark

*selected images only

	Plant name	Height (metres)	Flower colour/other physical features	Flowering time	Habitat value	Soil type	Position	Tolerates moisture	Other attributes
11	Grey Myrtle Backhousia myrtifolia	15	white flowers	Dec – Jan		any	sun or shade	•	limited availability; prefers moist soil
12	Old Man Banksia Banksia serrata	4–8	creamy-grey flowers; gnarled branches	Dec – Mar		sand	sun		requires well-drained soil
13	Coast Banksia Banksia integrifolia	6–15	pale yellow flowers	Jan – Jun		sand	sun		requires well-drained soil; faster growing than other Banksia species; salt and wind tolerant
14	Black wattle Callicoma serratifolia	10–12	pale yellow flowers, similar to Acacias; young leaves a pale copper colour; attractive lichen often grows on trunk	Oct – Nov		sand	shade	•	Prefers moist soil
15	Broad-leaved Scribbly Gum Eucalyptus haemastoma	10–15	white flowers; white/grey smooth bark with 'scribbly' pattern	Jul – Nov	 stick insects, hollows for birds & possums	sand	sun		
16	Narrow-leaved Scribbly Gum Eucalyptus racemosa	15	white flowers; white/grey smooth bark with 'scribbly' pattern	Apr – Oct	 stick insects, hollows for birds & possums	any	sun		
17	Swamp Paperbark Melaleuca ericifolia	8	white flowers	Dec – Feb		sand	sun	•	responds well to light pruning; good hedge plant; salt tolerant
18	Flax-leaved Paperbark (or Snow in Summer) Melaleuca linariifolia	10		Sep – Feb		any	sun or dappled light	•	

Sickle Wattle

Sunshine wattle

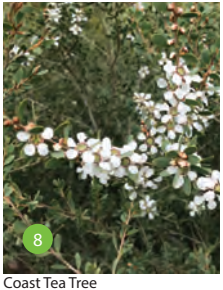
Black She-oak

Coffee Bush

Sweet Bursaria

NSW Christmas Bush

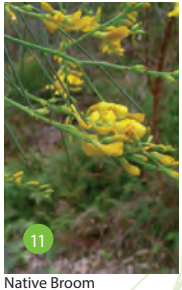
Fern-leaf Spider Flower



Coast Tea Tree

Ball Honey Myrtle

Scentless Rosewood



Native Broom

Tall shrubs

	Plant name	Height (metres)	Flower colour/other physical features	Flowering time	Habitat value	Soil type	Position	Tolerates moisture	Other attributes
1	Sickle Wattle Acacia falcata	5	pale yellow flowers; crescent-shaped leaves	Apr – Aug		any	sun		fast growing; nitrogen-fixing; short-lived (4–10 years)
2	Sunshine Wattle Acacia terminalis	6	yellow flowers	Feb – Oct		sand	sun		fast growing; nitrogen-fixing; short-lived (4–10 years)
3	Black She-oak Allocasuarina littoralis	8	woody cone	May – May	black cockatoos	sand	sun		
4	Coffee Bush Breynia oblongifolia	5	tiny white flowers; orange-pink berries	Sep – Feb	aggressive birds (currawongs)	any	dappled light or shade	•	has a tendency to sucker
5	Sweet Bursaria Bursaria spinosa	5	white flowers; prickly branches	all year		any	sun		very hardy
6	NSW Christmas Bush Ceratopetalum gummiferum	6	white flowers in October; striking pink-red sepals in December (around Christmas time)	Nov – Jan		sand	sun or dappled light		requires very well-drained soil
7	Fern-leaf Spider Flower Grevillea longifolia	5	red flowers	Aug – Nov		any	sun		various cultivars available
8	Coast Tea Tree Leptospermum laevigatum	7	white flowers	Aug – Oct		sand	sun	•	very hardy; salt and wind tolerant
9	Ball Honey Myrtle Melaleuca nodosa	5	white-yellow flowers	Sep – Feb		any	sun or dappled light	•	
10	Scentless Rosewood Synoum glandulosum	7	white-pinkish flowers	all year	 aggressive birds (currawongs)	any	dappled light or shade	•	limited availability
11	Native Broom Viminaria juncea	6	yellow flowers	Sep – Nov		sand	sun	•	prefers moist soil

Tall shrubs

Sydney Golden Wattle

White Wattle

Myrtle Wattle

Sweet Wattle

Prickly Moses

Scrub She-oak

Heath-leaved Banksia

Swamp Banksia

Hairpin Banksia

River Rose

Crimson Bottlebrush

Medium shrubs

	Plant name	Height (metres)	Flower colour/other physical features	Flowering time	Habitat value	Soil type	Position	Tolerates moisture	Other attributes
1	Sydney Golden Wattle *Acacia longifolia*	4	yellow flowers	Jun – Oct		sand	sun		fast-growing; nitrogen-fixing; short-lived (4–10 years)
2	White Wattle *Acacia linifolia*	4	yellow flowers	All year		sand	sun		fast-growing; nitrogen-fixing; short-lived (4–10 years)
3	Myrtle Wattle *Acacia myrtifolia*	3	yellow flowers	Jun – Oct		sand	sun		fast-growing; nitrogen-fixing; short-lived (4–10 years)
4	Sweet Wattle *Acacia suaveolens*	2.5	creamy-yellow flowers	Apr – Sept		sand	sun		fast-growing; nitrogen-fixing; short-lived (4–10 years)
5	Prickly Moses *Acacia ulicifolia*	2	pale yellow flowers; spiky leaves	Apr – Oct		sand	sun		fast-growing; nitrogen-fixing; short-lived (4–10 years)
6	Scrub She-oak *Allocasuarina distyla*	3	woody cone	Apr – Sept	black cockatoos	sand	sun		salt tolerant
7	Heath-leaved Banksia *Banksia ericifolia*	3	orange-red flowers; dainty leaves	Apr – Aug		sand	sun		salt tolerant
8	Swamp Banksia *Banksia robur*	2	yellow-golden brown flowers; large ornamental leaves	Jan – Jul		sand	sun	•	requires well-drained moist soil
9	Hairpin Banksia *Banksia spinulosa*	2	yellow-orange flowers; dainty leaves	Apr – Aug		sand	sun		requires well-drained soil
10	River Rose *Bauera rubioides*	2	pink flowers	Sept – Feb		sand	dappled light or shade	•	rambling shrub; good hedge plant; grows via suckers; prefers moist soil
11	Crimson Bottlebrush *Callistemon citrinus*	3	bright red flowers	Nov – Mar		sand	sun	•	very hardy

Medium shrubs

Narrow-leaved Bottlebrush

Large-leaf Hop-bush

Pink Wax Flower

White Spider Flower

Finger Hakea

Silky Hakea

Needlebush

Austral Indigo

White Kunzea

Tantoon

Medium shrubs

	Plant name	Height (metres)	Flower colour/other physical features	Flowering time	Habitat value	Soil type	Position	Tolerates moisture	Other attributes
12	Narrow-leaved Bottlebrush Callistemon linearis	3	pale red flowers	Sep – Nov		sand	sun	•	
13	Large-leaf Hop-bush Dodonaea triquetra	2	fruit is green or reddish	Jun – Oct		any	sun	•	very hardy; fast-growing; short-lived
14	Pink Wax Flower Eriostemon australasius	2	pink flowers	Sep – Nov		sand	sun		
15	White Spider Flower Grevillea linearifolia	2	white flowers	July – Oct		sand	sun		
16	Finger Hakea Hakea dactyloides	3	cream-white flowers	Sept – Oct		any	sun		good hedge plant
17	Silky Hakea Hakea sericea	3	prickly leaves	Jun – Sep		any	sun		
18	Needlebush Hakea teretifolia	3	prickly leaves	Aug – Oct		sand	sun		
19	Austral Indigo Indigofera australis	2	pink-purple flowers	Sep – Nov		any	sun		nitrogen fixing
20	White Kunzea Kunzea ambigua	3	white flowers with honey-like fragrance	Sep – Nov		any	sun	•	can grow on rock shelves and shallow soils
21	Tantoon Leptospermum polygalifolium	2.5	white flowers	Sep – Dec		clay	sun	•	well-suited to areas that are temporarily inundated

Medium shrubs

Peach Blossom Tea-tree

Small-leaved Daisy Bush

Sago Bush

Rusty Pomaderris

Bush Pea

Waratah

Butterfly Bush

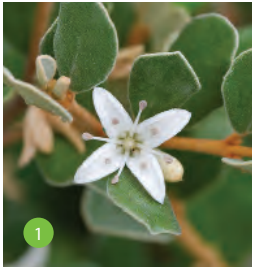
Lemon and other Citrus

Plumbago

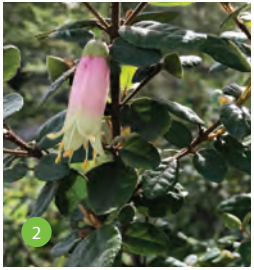
Medium shrubs

	Plant name	Height (metres)	Flower colour/other physical features	Flowering time	Habitat value	Soil type	Position	Tolerates moisture	Other attributes
22	Peach Blossom Tea-tree Leptospermum squarrosum	2	pale-deep pink flowers; prickly leaves	Mar – Sep		sand	sun		salt tolerant
23	Small-leaved Daisy Bush Olearia microphylla	2	white flowers	Jun – Oct		any	sun	•	
24	Sago Bush Ozothamnus diosmifolius	2	cream-white flowers; foliage emits pleasant fragrance after rain	Aug – Nov		sand	sun		
25	Rusty Pomaderris Pomaderris ferruginea	2	cream-yellow flowers; new growth rusty colour and hairy	Sep – Oct		sand	sun		
26	Bush Pea Pultenaea daphnoides	2	yellow and red flowers	Aug – Nov		sand	sun		
27	Waratah Telopea speciosissima	3	red flowers	Oct – Nov		sand	sun or dappled light		requires well-drained soil and watering during prolonged dry conditions; prune vigorously after flowering
28	Butterfly Bush Buddleja species	2	purple flowers	Varies		any	sun or dappled light	•	not native; prefers moist soil
29	Lemon and other Citrus	2–4	white flowers	Varies		any	sun		not native
30	Plumbago Plumbago auriculata	2.5	pale blue flowers	Nov – Mar		any	sun		good hedge plant; not native

Medium shrubs



White Correa



Common Correa

Swamp Lily

Egg and Bacon

Hop Goodenia

Grey Spider Flower

Pink Spider Flower

Red Spider Flower

Thyme Honeymyrtle

Coast Rosemary

Sandfly Zieria

Lavender

Small shrubs

	Plant name	Height (metres)	Flower colour/other physical features	Flowering time	Habitat value	Soil type	Position	Tolerates moisture	Other attributes
1	White Correa Correa alba	1	white flowers	Apr – Jun		sand	sun		salt tolerant
2	Common Correa Correa reflexa	1	red and green flowers	May – Nov		sand	sun		tolerates extended dry periods once established
3	Swamp Lily Crinum pedunculatum	1.5	white flowers	Aug – Jan		any	sun	•	will grow in large pot if watered regularly; prefers moist or wet soil
4	Egg and Bacon Dilllwynia retorta	1.5	yellow and red flowers	Jul – Sept		sand	sun		
5	Hop Goodenia Goodenia ovata	1	yellow flowers	Oct – Mar		any	sun or shade	•	copes with temporary inundation
6	Grey Spider Flower Grevillea buxifolia	1.5	grey flowers	Aug – Apr		sand	sun		
7	Pink Spider Flower Grevillea sericea	1.5	pink flowers	Aug – Dec		any	sun		
8	Red Spider Flower Grevillea speciosa	1.5	red flowers	Aug – Nov		sand	sun		
9	Thyme Honeymyrtle Melaleuca thymifolia	1	purple flowers; flowers frequently	Nov – Jul		any	sun	•	long-lived
10	Coast Rosemary Westringia fruticosa	1.5	white flowers	Most of the year		sand	sun		good hedge plant
11	Sandfly Zieria Zieria smithii	1.5	white flowers	Sept – Nov, Mar – May		sand	sun or dappled light		natural insect repellent
12	Lavender Lavandula spp.	1	blue-purple flowers	Jun – Jul		any	sun		good hedge plant; not native

Small shrubs

Three-awned Speargrass

Wallaby Grass

Long-hair Plume Grass

Forest Hedgehog Grass

Blady Grass

Creeping Beard Grass

Weeping Grass

Tussock Grass

Kangaroo Grass

Grasses*

*Selected Images Only

	Plant name	Height (metres)	Flower colour/other physical features	Flowering time	Habitat value	Soil type	Position	Tolerates moisture	Other attributes
1	Three-awned Speargrass Aristida vagans	0.5		Dec – Feb		sand	sun		
2	Wallaby Grass Rytidosperma tenuius	1		Oct – Jan		any	sun		
3	Barbed Wire Grass Cymbopogon refractus	1		Sept – May		any	sun		
4	Long-hair Plume Grass Dichelachne crinita	1	pale fluffy flower head	Sept – Nov		sand	sun		
5	Short-hair Plume Grass Dichelachne micrantha	1	pale fluffy flower head	Sept – Nov		any	sun		
6	Forest Hedgehog Grass Echinopogon ovatus	1		Sept – Nov		clay	sun	•	
7	Right Angle Grass Entolasia marginata	1		Most of the year		sand	sun or shade		limited availaibility
8	Blady Grass Imperata cylindrica	1	pale fluffy flower head	Dec – Feb		any	sun	•	spreads readily, via rhizomes as well as seed
9	Weeping Grass Microlaena stipoides	0.2		Sept – Feb		any	dappled light or shade	•	
10	Creeping Beard Grass Oplismenus imbecillis	0.3		Most of the year		any	dappled light or shade	•	suitable for no-mow lawn
11	Tussock Grass Poa affinis	1		Oct – Feb		sand	sun or shade		
12	Kangaroo Grass Themeda australis	1	rusty red flower head	Sept – Mar		any	sun		

Flannel flower

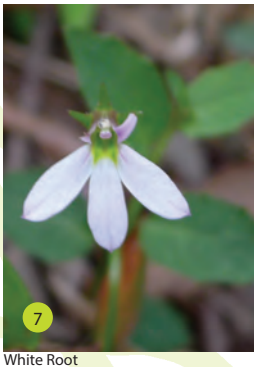
Centella

Blue Flax-lily

Black-anther Flax-lily

Kidney Weed

Pennywort



White Root

Spiny Headed Mat Rush

Cockspur flower

Native violet

Sprawling bluebell

Herbs & groundcovers

	Plant name	Height (metres)	Flower colour/other physical features	Flowering time	Habitat value	Soil type	Position	Tolerates moisture	Other attributes
1	Flannel Flower Actinotus helianthi	1	creamy white flowers	Sep – Feb		any	sun		
2	Centella Centella asiatica	GC	white pink (very small)	Jul – Aug		any	shade	●	suitable for no-mow lawn; edible
3	Blue Flax-lily Dianella caerulea	0.5	blue flowers; edible purple berries	Sep – Nov		any	sun or shade	●	very hardy; spreads readily via rhizomes as well as seed; various cultivars available
4	Black-anther Flax-lily Dianella revoluta	1	blue flowers; edible purple berries	Sep – Nov		any	sun or shade	●	very hardy; spreads readily via rhizomes as well as seed; various cultivars available
5	Kidney Weed Dichondra repens	GC	white	Most of the year		any	dappled light or shade	●	suitable for no-mow lawn
6	Pennywort Hydrocotyle peduncularis	GC	very small	Dec – Feb		any	dappled light or shade	●	suitable for no-mow lawn
7	White Root Lobelia purpurascens	GC	white flowers	Sep – Jan		any	dappled light or shade	●	suitable for no-mow lawn
8	Spiny Headed Mat Rush Lomandra longifolia	1	prickly flower heads	Sep – Nov		any	sun or shade	●	very hardy; various cultivars available
9	Cockspur Flower Plectranthus parviflorus	0.5	peppermint-like fragrance	Most of the year		any	shade	●	
10	Native Violet Viola hederacea	GC	white and purple flowers	All year		any	dappled light or shade	●	suitable for no-mow lawn; edible flowers
11	Sprawling Bluebell Wahlenbergia gracilis	0.5	pale pink-mauve flowers	Sep – Feb		any	sun or shade		grows well in rockeries

GC: groundcover

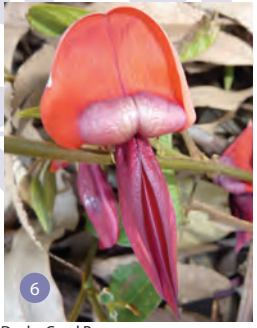
Old Man's Beard

Forest Clematis

False Sarsparilla

Guinea Flower

Climbing Guinea Flower



Dusky Coral Pea

Wonga Wonga Vine

Bougainvillea

Star Jasmine

Kangaroo Vine

Passionfruit

Climbing Roses

Wisteria

Climbers

	Plant name		Flower colour/other physical features	Flowering time	Habitat value	Soil type	Position	Tolerates moisture	Other attributes
1	Old Man's Beard Clematis aristata		white flowers	Oct – Nov		sand	sun		
2	Forest Clematis Clematis glycinoides		prolific white flowers	Aug – Oct		sand	sun		
3	False Sarsparilla Hardenbergia violacea		purple flowers	Sep – Oct		sand	sun		very hardy; also grows as a groundcover
4	Guinea Flower Hibbertia dentata		yellow flowers	Sep – Dec		sand	sun or dappled light	•	also grows as a groundcover
5	Climbing Guinea Flower Hibbertia scandens		yellow flowers	Sep – Jan		any	sun	•	also grows as a groundcover
6	Dusky Coral Pea Kennedia rubicunda		red and black flowers	Sep – Nov		any	sun		grows vigorously; short-lived
7	Wonga Wonga Vine Pandorea pandorana		prolific white flowers (cultivars available with pinkish flowers)	Sep – Nov		any	sun or dappled light	•	
8	Bougainvillea Bougainvillea glabra		pink-red-purple flowers	Oct – Jan		sand	sun		not native
9	Star Jasmine Trachelospermum jasminoides		white flowers with pleasant fragrance	Oct – Dec		any	sun or shade		not native
10	Kangaroo Vine Cissus antarctica		very small cream flowers with a small grape-like berry (not edible)	Sep– May		any	dappled light or shade		hardy and fast growing; can be used as a groundcover or climber; also good for containers and indoors
11	Passionfruit Passiflora spp.		white flowers	Nov – Feb		any	sun		not native
12	Roses — various climbing varieties		various	Varies		any	sun		need rich soils — if planting in sand, add mulch; not native
13	Wisteria Wisteria sp.		mauve flowers	Sept – Feb		any	sun	•	not native; prefers moist soil

Common Maidenhair Fern

Common Ground Fern

Rough Tree Fern

Coopers Tree Fern

Prickly Rasp Fern

Ground Fern

Ferns

	Plant name	Height (metres)			Habitat value	Soil type	Position	Tolerates moisture	Other attributes
1	Common Maidenhair Fern Adiantum aethiopicum	0.5				any	dappled light or shade	●	spreads readily; prefers moist soil
2	Common Ground Fern Calochlaena dubia	1				any	dappled light or shade	●	once established, can be spread by dividing clumps; prefers moist soil
3	Rough Tree Fern Cyathea australis	10				any	dappled light or shade	●	limited availability; can tolerate full sun if soil is permanently moist
4	Coopers Tree Fern Cyathea cooperi	10				any	dappled light or shade	●	can tolerate full sun if soil is permanently moist
5	Prickly Rasp Fern Doodia aspera	0.4				any	dappled light or shade	●	once established, can be spread by dividing clumps; prefers moist soil
6	Ground Fern Hypolepis muelleri	1				any	dappled light or shade	●	spreads readily; prefers moist soil

Tall Sedge

Knob Sedge

Curly Wig

Knobby Club Rush

Purple Loosestrife

Frogsmouth

Red-fruit Saw-sedge

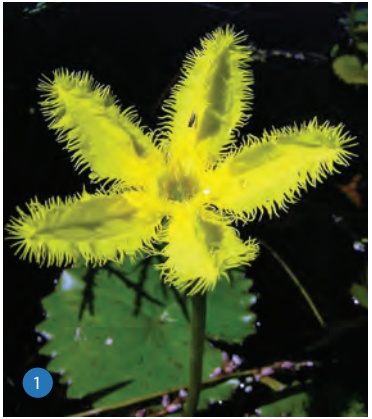
Tall Saw-Sedge

Sand Rush

Common Rush

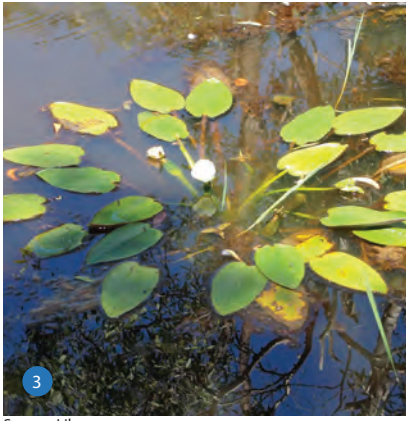
Sedges

	Plant name	Height (metres)	Flower colour/other physical features		Habitat value	Soil type	Position	Tolerates moisture	Other attributes
1	Tall Sedge Carex appressa	1	forms grass-like tussock			any	sun	●	very hardy; also tolerates periods of wet and dry
2	Knob Sedge Carex fascicularis	1.5	drooping seed heads			any	sun		needs standing water
3	Curly Wig Caustis flexuosa	0.5	curling foliage			sand	sun or dappled light	●	
4	Knobby Club Rush Ficinia nodosa	1	knobby seed heads			any	sun or shade	●	very hardy; salt tolerant; also tolerates periods of wet and dry
5	Purple Loosestrife Lythrum salicaria	1	purple flowers			any	sun	●	very hardy, tolerates temporary inundation; prefers moist soil
6	Frogsmouth Philydrum lanuginosum	1	yellow flowers			any	sun		standing water
7	Red-fruit Saw-sedge Gahnia sieberiana	1.5	forms grass-like tussock; large dark flower heads			sand	sun or dappled light	●	also tolerates periods of wet and dry
8	Tall Saw-sedge Gahnia clarkei	1.5	forms grass-like tussock; large dark flower heads			sand	sun or dappled light	●	also tolerates periods of wet and dry
9	Sand Rush Juncus continuus	0.5	very fine stems; small, brown, clustered seed heads			any	sun	●	also tolerates periods of wet and dry
10	Common rush Juncus usitatus	0.5	very fine stems; small, brown, clustered seed heads			any	sun	●	also tolerates periods of wet and dry



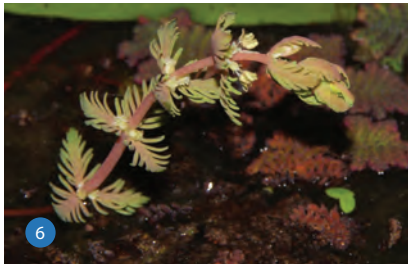
Crenated Water Fringe

Giant Water Lilly



Swamp Lily

Coarse Water-milfoil



Red Water-milfoil

Floating plants*

*Selected Images Only

	Plant name		Flower colour/other physical features	Flowering time	Habitat value	Soil type	Position		Other attributes
1	Crenated Water Fringe Nymphoides crenata		yellow flowers	Sep – May		any	sun		native to western NSW
2	Giant Water Lily Nymphaea Gigantea		large blue-white flowers	Varies		any	sun		native to western NSW
3	Swamp Lily Ottelia ovalifolia		pale yellow flowers	Nov – Mar		any	sun		
4	Coarse Water-milfoil Myriophyllum caput-medusae		yellow – reddish flowers	All year		any	sun		spreads readily; clear periodically to maintain open water
5	Slender Water-milfoil Myriophyllum tenellum		slender, leafless stems	All year		any	sun		spreads readily; clear periodically to maintain open water
6	Red Water-milfoil Myriophyllum verrucosum		yellow flowers	All year		any	sun		spreads readily; clear periodically to maintain open water

Floating plants

European Water-plantain

Jointed Twig-rush

Bare Twig-rush

Tall Spike-rush

Bog Bulrush

Narrow-leaved Cumbungi

Reeds*

*Selected Images Only

	Plant name	Height (metres)	Flower colour/other physical features	Habitat value	Soil type	Position	Other attributes
1	European Water-plantain Alisma plantago-aquatica	1	pinkish-white flowers		any	sun	
2	Jointed Twig-rush Baumea articulata	1.5	drooping seed heads		any	sun	
3	Bare Twig-rush Baumea juncea	1	grey-green leaves and small inflorescence		any	sun	salt tolerant
4	Soft Twig-rush Baumea rubiginosa	1	strong leaves and clusters of spikelets		any	sun	
5	Marsh Club-rush Bolboschoenus fluviatilis	1.5	stands tall		any	sun	spreads readily; cut back when required to prevent it taking over and maintain open water
6	Common Spike-rush Eleocharis acuta	0.5	brown flowers		any	sun	
7	Tall Spike-rush Eleocharis sphacelata	2	white flowers		any	sun	
8	Bog Bulrush Schoenoplectiella mucronata	1	three angled stem, inflorescence is a cluster of cone-shaped spikelets		any	sun	
9	Grey Club-rush Schoenoplectus tabernaemontani	1.5	inflorescence a panicle of spikelets on long thing branches, spikelets vary in colour		any	sun	synonymous with Schoenoplectus validus
10	Water Ribbons Triglochin procera				any	sun	was used as a food source – both tubers and fruit
11	Narrow-leaved Cumbungi Typha domingensis	2			any	sun	spreads readily; cut back when required to prevent it taking over and to maintain open water

Specialist native nurseries

Randwick City Council Community Nursery
2B Barker Street (corner Day Lane), Kingsford
Phone: 02 9662 6225
www.randwick.nsw.gov.au/environment-and-sustainability/randwick-community-nursery

Marrickville Community Nursery
142 Addison Road, Marrickville
Phone: 0412 435 948
www.innerwest.nsw.gov.au/live/environment-and-sustainability/wildlife-and-natural-areas/community-native-nurseries

Bayside Community Centre
41 Beach Street Kogarah NSW 2217
Ph: 02 9553 7346
www.bayside.nsw.gov.au/area/parks/bayside-garden-centre

Growing Friends Plant Sales
Royal Botanic Gardens
Next to the Foundation & Friends Office
Cottage 6, Mrs Macquaries Road, Sydney
Phone: 02 9231 8182
www.rbgsyd.nsw.gov.au/whatson?c=0021

Cornucopia Nursery
Corner Victoria Road and Punt Road, Gladesville NSW
Phone: 02 9816 0393 or 0412 131 362
www.mars-inc.com.au/index.php/cornucopia-nursery/

Watergarden Paradise (online/mail orders)
www.watergardenparadise.com.au
Phone: 02 9727 2622

Australian Plants Online (online/mail orders)
www.australianplantsonline.com.au
Phone: 07 5451 3506

Sonters Ferns
240 Singles Ridge Rd, Winmalee
Phone: 02 4754 1177

Don't forget to ask for specific planting and maintenance instructions when buying your plants.

Note that plants from native nurseries outside Sydney and retail nurseries are unlikely to have come from local plant stock. Retail nurseries often stock hybrid cultivar varieties.

Photography

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