















Together we can create a Bee & Pollinator Friendly Australia!

# **Come and Join Us!**

## We are working towards 'Bee and Pollinator Friendly Canberra'

A Bee-Friendly ACT focuses on improving the policies and practices of institutions and organisations in the Australian Capital Territory (ACT).

### Provide ideal pollinator-friendly habitat, including:

- Diverse and abundant nectar and pollen from plants blooming in succession throughout the year
- Water for drinking, nest-building, cooling and butterfly puddling ٠
- Undisturbed spaces (leaf and brush piles, unmown paddocks or ٠ paddock margins, nature strips, fallen trees and other dead wood) for nesting and wintering for wild pollinators
- Is free or nearly free of pesticide use (-in farming, gardening, agriculture, seed and plant propagation, park and open space landscape maintenance etc)- see pest management below.
- Is comprised of mostly native flowering plants, grasses, vines, shrubs, and trees in landscapes because many wild pollinators prefer or depend on the native plants with which they co-adapted
- Connectivity between habitat areas to support pollinator movement • and resilience
- Where possible, designated pollinator zones in public spaces with signage to educate the public and build awareness; and
- Safe and humane removal of honey bees when required. •
- Use integrated pesticide management practices- see more detail ٠ below

## **Pest Management**

Integrated Pest Management (IPM) is a long-term approach to maintaining healthy landscapes and facilities that minimise risks to people and the environment by:

- Identifying and removing the causes of pest problems rather than only • attacking the symptoms (the pests).
- Encouraging beneficial insect predators to help control pests naturally. Employing pest' natural enemies along with cultural, mechanical and physical controls when prevention is not enough.
- Not using biocides that are harmful to bees, e.g. Neonicotinoids and only using them when no other method is feasible or effective.

Please contact us if your business, school or community group would like to join us! We will be creating a map of Bee Friendly sites.

## **Plant a Variety of Herbs & Native Plants so Bees can Forage**

We can all help the health of our local environment by planting a 'bee banquet' in our gardens for bees and other beneficial insects and birds throughout the year.

Studies have shown that by increasing the diversity of flowering plants in our gardens, there will be a good balance of predators which eat other insects (ladybirds, birds, lizards, frogs) and pollinators (bees, butterflies, beetles) that facilitate pollination so plants can produce fruits, vegetables and seeds.

Pollinators are the foundation of biodiversity, and their presence in landscapes creates food for a wide range of other animals.

Australia is already one of the most urbanised countries in the world, with a predicted increase to 90% of the population living in cities by 2050. "Urbanisation is a major driver of ecosystem degradation and habitat loss and is a global threat to biodiversity." (Australian Native Bees, 2016 NSW DPI, p.45).

When land is cleared for urban development, many species lose their homes and food supplies. New developments are often 'all house/no garden' and so there is an additional need for street plantings to provide a good range of food and habitat. By providing these resources in urban green spaces, native bees and other pollinators populations can be attracted and sustained, which in turn supports the biodiversity within urban landscapes.

Many new developments also have sites for 'Community Gardens' which benefit from pollinator friendly plantings surrounding them.

Bees eat nectar and pollen. Nectar gives them energy for growth, breeding, flying and keeping warm. Pollen is the source of bees' protein and fats for muscle growth in brood and young adult bees.

For a healthy immune system bees and other pollinators need us to:

- ranges of up to 500 metres.
- different niches.
- . heat.
- in paddocks for habitat.

Plant flowers in clumps of up to 1 metre across as it is easier for pollinators to find and reduces foraging distance. Many native bees have limited flight

Plants should be of varying size and height to provide shelter for insects in

Provide a variety of plants that flower at different times with overlapping so there is something to eat particularly around |an – March when bees are building up their nests and there are fewer flowers around in the extreme

Choose a range of colours of flowers. Bees have good colour vision and are particularly attracted to blue, violet, purple, yellow and white. They like petals with nectar guides including stripes and spots.

Native bees prefer a variety of 'local' native plants. They are largely ground dwelling and prefer soil free of pesticides and fertilizers. Leave areas of the ground undisturbed for native bee nesting sites. Keep dead wood and trees





- Butterflies prefer red, orange, pink and white flowers with a trumpet shape that hold nectar.
- Plant heirloom varieties of herbs and perennials as hybridisation has reduced the nectar and pollen in many flowers.
- Use organic seeds and seedlings to ensure plants have not been treated with pesticides. For suppliers please go to the Organic Suppliers section of actforbees.org website.
- Bees and other beneficial insects ladybugs, butterflies, and predatory wasps — all need fresh water to drink. Put stones in a bird bath so they don't drown.
- Herbs are the bees medicine chest and great for cooking so include a wide range of herbs in pots or in the garden. Borage, Basil, Bee Balm, Calendula, Chamomile, Coriander, Dill, Echinacea, Lavender, Lemon balm, Oregano, Peppermint, Rosemary, Sage, Sunflowers, Thyme and Yarrow are wonderful additions to our gardens and can be grown in pots if limited space. Good for us and good for bees, butterflies. Let them go to flower!











## Groundcovers for Bees & Pollinators in the ACT

Groundcover Image	Plant Name	Height x Width (m)	Flowering	Nectar / Pollen	Pollinator
	Brachyscome multifida Cut-Leafed Daisy	Small plant for rockeries	Late Winter to early Autumn (long flowering)	Nectar Pollen	Native Bees
	Chrysocephalum species Paper Daisy	0.8 × 0.8	Spring-Summer (local species)	Nectar Pollen	Native Bees Butterflies
	Correa 'Dusky Bells'	Under Im	Autumn	Nectar	Bees
	Correa glabra Rock Correa	Under Im	Autumn & Winter	Nectar	Bees
	Dampiera diversifolia	0.1 × 0.5	Spring & Summer	Nectar	Bees Butterflies
	Dianella species Blue Flax Lilies	l x l	Spring & Summer (local species)	Nectar Pollen	Variety of native bees
	Goodenia species	Border or groundcover	Spring to Autumn	Nectar	Variety of native bees



### groundcovers continued.....

Groundcover Image	Plant Name	Height x Width (m)	Flowering	Nectar / Pollen	Pollinator
	Grevillea 'Bronze Rambler'	0.3 × 2	All year round	High Nectar	Bees
	Grevillea lauriflolia 'Royal Mantle'	Prostrate groundcover	Autumn to Winter	Nectar	Honeybees
	Hardenbergia violacea False Sarsparilla	Prostrate groundcover	Early Spring (local species)	Nectar Pollen	Bees Butterflies Leafcutter Bees
	Hibbertia calycina Lesser Guineaflower	0.2 × 0.6	Late Spring & Summer (local species)	Pollen	Native Bees: Teddy Bear Bees & Blue Banded Bees
	Scaevola humilis Fan Flower	0.2 x 1.5	Spring to Summer	Nectar	Native bees Leafcutter bees Butterflies Birds
	Salvia species Sages	I × 0.5	Spring, Summer & Autumn	High Nectar	Bees Leafcutter bees Butterflies Bird
	Salvia uliginosa Bog Sage	I x 1.5	All summer (vigorous)	Nectar	Honeybees Native Bees
	Wahlenbergia capillaris Native Bluebell	0.3 × 0.1	Summer & Autumn (local species)	Nectar	Native Bees
	Xerochrysum viscosum Sticky Everlasting	0.8 × 0.8	Spring & Summer (local species)	Nectar Pollen	Bees Butterflies





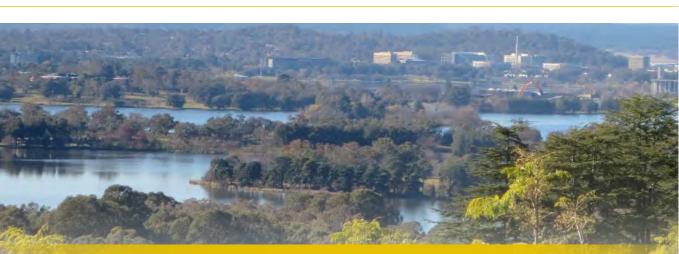
Shrub Image	Plant Name	Height x Width (m)	Flowering	Nectar / Pollen	Pollinator
	Abelia x grandiflora Abelia	x	Summer	High Nectar	Honeybees Native Bees Butterflies
	Baeckea virgata Tall Baeckea	3 x 3	Summer	Nectar	Bees
	Callistemon species Bottlebrush	2-4.5 x 1-2	Spring & Summer (flowers twice a year in good conditions)	High Nectar Medium Pollen	Bees Beneficial wasps Moths Birds
	Cassinia longifolia Cauliflower Bush	2 x 2	Summer (local species)	Nectar Pollen	Butterflies Habitat for Birds & other Native Fauna
	Ceanothus 'Blue Pacific'	2 x 1.5	Summer	Nectar Pollen	Bees
	Correa pulchella	x	Long flowering season	Nectar Pollen	Bees Nectar-feeding Birds
	Crowea saligna	1.2 x 1.2	Autumn & Winter	Nectar Pollen	Bees Other Insects



shrubs continued.....

Shrub Image	Plant Name	Height x Width (m)	Flowering	Nectar / Pollen	Pollinator
	Daviesia mimosoides Narrow-leaved Bitterpea	2 x 1.5	Spring	Nectar Pollen	Native Bees Honeybees Other Insects
	Grevillea victoriae Royal Grevillea	1.5 × 3	Spring & Summer	Nectar	Honeybees Birds
	Grevillea iaspicula Wee Jasper Grevillea	2 x 2	Winter	Nectar	Honeybees
	Hakea species Pincushion Trees	5 x 2	Winter & Spring	Medium Nectar Low Pollen	Honeybees
	Hebe species	x	Year round	Nectar	Native Bees
	Leptospermum species Tea Trees	3 x 3	Spring & Summer	High Nectar Pollen	Native Bees
	<i>Melaleuca species</i> Paperbarks	1.5 x 2.5	Spring & Summer	High Nectar High Pollen	Other Insects
	Prunus cerasifera Cherry Plum	4 x 6	Spring	Nectar Pollen	Bees
	Westringia longifolia Long-leaved Westringia	2 x 1.5	Spring	High Nectar	Native Bees Birds





# Trees for Bees & Pollinators in the ACT

Tree Image	Plant Name	Height	Flowering	Nectar / Pollen	Pollinator
	Acacia melanoxylon Blackwood	10 - 25 m	Summer (local species)	Good Pollen	Bees
	Banksia marginata & Banksia species	6 - 8 m	Summer to Autumn (local species)	Good Nectar Pollen	Native Bees Honeybees
	Brachychiton populneus Kurrajong	8 - 10m	Summer (local species)	Medium Nectar Pollen	Bees
	Eucalyptus blakelyi Blakely's Red Gum	15 - 20 m	Spring to Summer (local species)	Medium Nectar Medium Pollen	Bees
	Eucalyptus mannifera Brittle Gum	10 - 15 m	Summer to Autumn (local species)	Low Nectar Medium Pollen	Bees
	Eucalyptus melliodora Yellow Box	15 - 25 m	Spring to Summer (local species)	High Nectar Nil Pollen	Bees

trees continued .....

Tree Image	Plant Name	Height	Flowering	Nectar / Pollen	Pollinator		
	Eucalyptus pauciflora Snow Gum	10 - 15 m	Summer to Autumn (local species)	High Nectar High Pollen	Provides wildlife habitat		
	Eucalyptus polyanthemos Red Box	15 - 20 m	Summer to Winter	Medium Nectar Low Pollen	Bees		
	Eucalyptus viminalis Manna Gum	15 - 30 m	Summer	Medium Nectar Medium Pollen	Bees		

## Plants that attract specific native bees

Information from combined sources: Michael Mobbs (sustainablehouse.com.au) and articles on the website; aussiebee.com.au.

Long-tongued bees such as the Leafcutter Bee and Reed Bee will favour tubular blooms such as:

- Correa (Native Fushia)
- Westringia (Native Rosemary)
- Prostanthera (Mint Bushes)
- Buddleja (Butterfly Bush). Blue Banded Bees love the small flowers of the Butterfly Bush and Leafcutter Bees love to cut disks from its soft leaves for their nest materials

Reed Bees also love Australian plants in the Fabaceae family such as:

- Wattles
- Peas

Plants that specifically attract the 'Buzz Bees' such as the Teddy Bear, Carpenter and Blue-Banded Bees include:

- Dianella
- Hibbertia scandens (hardy native salt-tolerant climber, Sun or Shade, protect from frost)
- Leptospermum (Tea Tree)
- Pomaderris masses of creamy flower heads are very attractive to native bees, as well as other insects.
- Westringia
- Abelia x grandiflora
- The purple flower spikes of the lavender are particularly attractive to Blue Banded Bees. These are compact hardy shrubs that produce plenty of nectar and flower for a long period.
- Other herbs in this family, such as basil, thyme, lemon balm and mint are also very popular with native bees.

Many native bees need nectar and pollen throughout the year. Although many of the solitary species, such as Blue Banded Bees and Resin Bees, only fly in the warm months, others, such as Stingless Bees, Reed Bees and Carpenter Bees, fly on warm days all year round. So choose plants with a long flowering period, or choose a selection of plants that will flower in sequence in each season of the year.

Mature Eucalyptus trees are also an important source of resin for Stingless Bees and Resin Bees.

Even dead shrubs and trees are home to many creatures. The metallic-green Peacock Carpenter Bee nests in dead dry flowering stalks of grass trees (Xanthorrhoea) or in soft wood such as Banksia and Leptospermum.

## Resources

### Australia:

- ACT for Bees Gardening for Bees Bee Friendly - Publications
- Bees Business. Great information on native bees Honey and pollen flora suitable for planting in SE NSW
- Flora Resource Database for the NSW Apiary Industry Doug Sommerville. NSW RIRDC Planting and Creating Habitat to Attract Bees
- Attracting Native Bees to Your Garden - Flora for Fauna
- Native Bee Attracting Plants
  Flowers for Native Bees in
  Sydney
- Protein Content and Amino Acid Profiles of Honeybee Collected Pollens Australian Plants for Canberra region gardens and other cool climate areas.Australian Native Plants society Canberra Region Inc. ANPSCR 2016
- The Bee Friendly Garden: Doug Purdie 2016
- Bee Friendly A Planting Guide for European Honeybees and Australian Native Pollinators. Mark Leech of the Australian Government RIRDC.
- Planting a Bee-Friendly Garden. aussiebee.com.au

### **Overseas /Introduced species:**

- Nectar and Pollen Providing Plants for Honey Bees - Duval County Trees for Bees - British Beekeepers Association
- The National Gardening Association Database British Beekeepers:Trees for Bees







Authors: Julie Armstrong & Meredith Cosgrove ACT for Bees & other Pollinators Updated: September 2021

We acknowledge the Traditional Owners of the land, the Ngunnawal and Ngambri people, upon which ACT for Bees meets and works and pay our respects to Elders past, present and emerging. We are grateful for their connection, knowledge and care of the land and all of life for thousands of generations. We have much to learn from them.