



Image- Spotted Pardalote (C) Chris Dubar 2017

NATURAL RECIPES

WHITE OIL – controls aphids, scale, mealy bug and citrus leaf miner.
 Concentrate: 1 cup vegetable oil, ¼ cup dish-washing soap. Put in a bottle and shake vigorously.
 Add 1 tablespoon concentrate to 1 litre water. Shake and spray over the infected plant.
 Repeat every 3-4 days. Do not spray on hot sunny days as this can burn the plant.

BOILING WATER – control weeds by simply pouring boiling water on them. Great for pathways.

TOMATO LEAF SPRAY (tomatoes belong to the 'nightshade' family. Their foliage contains toxic compounds, called alkaloids that are handy for controlling aphids).
 Mix 2 cups tomato leaves, 2 cups water. Soak overnight. Remove leaves the next day. Add 2 more cups water, then fill spray bottle.

COMPOST adds nutrients, improves soil structure, and increases moisture retention and the number of beneficial microbes in your soil. By composting, you are preventing organic matter from making its way to landfill.

GET TO KNOW YOUR INDIGENOUS NURSERIES

Victorian Indigenous Nurseries Cooperative (VINC)
 Yarra Bend Rd,
 Fairfield 3078
 Ph: 9482 1710

CERES Permaculture & Bush-food Nursery
 Stewart St & Roberts St, Brunswick East VIC 3057
 (03) 9389 0111

LaTrobe Wildlife Sanctuary & Indigenous Nursery
 La Trobe Ave, Bundoora VIC 3083
 Bundoora
 Ph: 9479 2671

USEFUL EQUIPMENT GOOGLE

- Cat Enclosures
- Indian Myna Cages
- Nesting Boxes
- Natural herbicide
- Recycled building supplies
- Chicken Feeders

SUSTAINABLE PRODUCT CHOICES

There are a number of ways you can reduce the impact of gardening on the environment:

- Consider reusing or purchasing second hand pavers and bricks
- If you cannot source recycled timber use Forest Stewardship Council (FSC) certified plantation timbers rather than imported rainforest timbers
- Consider posts, sleepers and decking made from recycled plastic and waste timber
- Use small amounts of quarried rocks that have been tumbled rather than river stones.

- Choose timber sleepers treated with non-arsenic-based chemicals.
- Reuse old pots or containers to make interesting container pots.
- Source seeds and plants from reputable suppliers.
- Consider solar pumps and lights for the garden.
- Do a web search for recycled building supplies.
- Use natural pest control recipes, some have been listed in this brochure.



Image- Blue Blaind Bee (C) Emmaline Bowman 2016



Flower Wasp



Hover fly

RESOURCES TO CREATE YOUR HABITAT GARDEN

Buzz and Dig Urban Backyard Education – Building a bee hotel
 facebook.com/buzzanddig

Greening Australia (Victoria) for a list of your Indigenous Nurseries

Darebin Bushland Management (03) 8470 8762

Plants of Melbourne's Western Plains - A gardeners guide to the original flora.

Marilyn Bull- Flora of Melbourne - A GUIDE TO THE INDIGENOUS PLANTS OF THE GREATER MELBOURNE AREA.

Field guide – **Flora Grasslands biodiversity of south eastern Australia**, Ecolinc.

Indigenous Flora and Fauna Association (IFFA)

Australian Plant Society, Victoria -www.apsvic.org.au

Wildlife Victoria -www.wildlifelife.org.au

Aboriginal Use Plants of the Greater Melbourne area – David De Angelis, La Trobe University Environment Collective 2005.

ACKNOWLEDGEMENTS:

A huge thanks to the contributors of this brochure;

Carolyn M Lunt - Convenor of Friends of Merri on Parade est 1983
 On the Verge, M: 0466 517 993 | W: www.carolynlunt.com

STEM Landscape Architecture & Design

Emmaline Bowman
 M: 0448 740 174 | E: em@stemlandscape.com | W: www.stemlandscape.com

Ged Kearney MP, Federal Member for Cooper for the printing of this brochure

(For more advice on habitat gardening, designing verge gardens and rehabilitation feel free to contact)

"It is that range of biodiversity that we must care for – the whole thing..."
"Cherish the natural world, because you're a part of it and you depend on it."
 -Sir David Attenborough



Image-Silver Eyes (C) Dragana 991



ESSENTIALS- WHAT YOU NEED TO START YOUR HABITAT GARDEN.

FOOD availability is a major factor when trying to encourage wildlife into your garden. Plants that produce nectar, pollen, seeds, fruit, leaves and tubers provide food for many native animals.



Callistemons are great for pollinators & nectivores

Different animals have different food preferences. You are probably already aware of term, such as herbivore, carnivore and omnivore, used to describe animals that are plant eating, meat eating and both plant and meat eating.

Frugivore: an animal, such as a fruit bat, whose primary diet consists of fruit.

Granivores: an animal whose primary diet consists of grains and seeds. (Finches, seed bugs, Rosella's)

Nectivore: An animal that relies on nectar as its primary food source. (Lorikeets, possums, wattle-birds, honey-eaters)

Insectivore: an animal that feeds on insects. (Lizards, skinks, frogs, Antechinus, lyrebirds and magpies).

There are many different ways you can provide food for animals and its as easy as planting.

Native grasses are great for seed-eaters. Little Corellas, Eastern Rosella's and Galahs love grazing on ovals and lawns. Local species such as *Poa labillardieri*, *Themeda triandra*, *Microlaena stipoides*, *Entolasia stricta* and *Diplismenus spp.* are important food sources for Eastern Rosellas and King Parrots.

Grasses are also an important component for nests and bedding material for a wide variety of mammals and birds.



Image- Yellow Foot Antechinus (C) Colleen 2020

Fruiting plants provide a food source for wildlife such as Red wattlebirds, Butcher birds, possums and fruit-bats. Included plants like *Dianella tasmanica*, *Dianella revoluta*, *Billardiera scandens*, *Enchylaena tomentosa*, *Austrorhynchus dulcis* and *Solanum aviculare*.

Leaf litter, Rocks & Logs are great for attracting insects into your garden. Organic matter helps to encourage beneficial insects like worms and slaters. All are important as primary, or secondary decomposers helping to break down and dispose of wastes, decomposing matter and plant debris. In turn, insects will attract a variety of animals: echidnas, currawongs, antechinus, scrub wrens, blue tongues, skinks, frogs, kookaburras, silver-eyes, red-browed Finch, eastern yellow Robins, spotted Pardalotes, grey fantail and superb fairy-wrens. These animals like to forage in the protected lower levels of the garden, feeding on insects, caterpillars, spiders, berries and seed.

Include plants like *Bursaria spinulosa*, *Atriplex semibaccata*, *Einadia nutans*, *Clematis microphylla*, *Acacia paradoxa* and *Poa labillardieri* to add a little bit of everything to your garden.

WATER is essential to all living. Provide a water source into your garden and you will cater for many different animal species, whether they come for a much needed drink, to bathe or to live. There are many ways you can add water into your garden.



Greening Water Frog (Image: C) Emmaline Bowman

PONDS provide habitat for frogs as well as for dragonflies and lizards, such as the Eastern Water-Skink. Small birds will also likely to visit your pond for a drink or bath. Make sure to place a log or rock on the edge of the pond to help them climb out.

When building a pond, incorporate different levels to support different plants and animals. Use logs, boulders and aquatic plant aquatic species.

Aquatic Species: *Myriophyllum crispulum*, *Marsilea drummondii*, *Carex appressa*, *Eleocharis acuta*, *Juncus pallidus*, *Vallisneria spiralis* and *Xerochrysum palustre*.

POND DIAGRAM



Bananas provide nectar and seed to a variety of animals.

BIRD BATHS are a great addition to the garden, they not only look good but they provide a water source to birds and some animals.

Place the bird bath up high off the ground, away from where a predator can sneak up on a thirsty or bathing animal.

Keep your bird bath in the shade as water can become hot and evaporate.

Make sure water is clean and full especially on those hot days.

Put a small rock in the bath to help prevent small birds drowning, or to help them climb out if the bowl is slippery.

Lastly, enjoy the visitors coming into your garden. Sit back and record what you observe.

SHELTER: In the natural environment, different animals use logs, tree hollows, leaf litter, plants and rocks as homes. With urbanisation, animals have had to adapt their living spaces to cope with increasing human activity.

Native wildlife needs to find shelter from bad weather, predators, and competitors. They need a refuge in which to build their homes and raise their young. Prickly shrubs such as Hedge Wattle (*Acacia paradoxa*), Blue Devil (*Erigeron ovium*), Sweet Bursaria (*Bursaria spinulosa*) or Bushy Needlewood (*Hakea decurrens*) as well as mature trees like yellow Box (*Eucalyptus melliodora*) can provide homes for a large range of insect, bird and mammal species.



Image- Rabbit Hole (Image: C) La Trobe University Wildlife Sanctuary

Here are a few helpful ways to create shelter:

Structural diversity: Lots of plants and different layers. Aim to create a mix of trees, shrubs of varying height, together with grasses and ground-covers in your garden.

Sticks and stones will make good homes: Reptiles, insects and small mammals utilise piles up debris to make cosy shelters. Have some fun building a shelter with these materials in a protected part of the garden.

Collection Bowls: collect twigs, straw, dried grass, coconut fibre, feathers and other natural nesting materials. Birds, especially in spring, will collect these items to build nests and bedding for their young. Animals too, collect materials to line their bedding in winter too, so why not offer them some?

Please remember that logs & rocks should not be sourced from bushland areas where they are already providing habitat.

DID YOU KNOW?
 A 'drey' is a nest built by Ringtail possums. Ringtails still like nesting in boxes but they also build these nests out of sticks, leaves and branches. You may find these in your bush, so be careful and leave it be.

Image: Eastern Sporebill (C) Bill Harding 2019

INSECTS:

Native Bees: There are more than 1500 species of native bees in Australia, including ten stingless species. Most are solitary bees which raise their young in burrows in sandy loam soils, in tiny hollows or inside hollow cavities in plants like rushes.

Introduce a 'bee hotel' to your habitat garden to provide shelter for these important pollinators. As well, incorporate native flowering plants such as *Brachycome multifida*, *Wahlenbergia stricta*, *Isotoma siliaris*, *Xerochrysum viscosum*, *Chrysocephalum spiculatum*, *Callistemon*, *banksias*, *Bulbine bulbosa*, and *Arthropodium strictum*.

Butterflies need a dish of damp sand or muddy water, placed in a sunny, sheltered spot for moisture, minerals and salts. Place a rock in the centre of the dish to allow them to rest and bask in the sunlight.

Grasses like *Poa labillardieri*, *Themeda triandra* and *zyctosperma* will provide areas for butterflies to lay their eggs.

Bug hotels: Have some fun constructing your own bug hotel. To encourage bees, native wasps and spiders to your garden. Cut up tree branches, preferably from native trees, and drill holes into them, add things like dried rushes, bamboo, crunched paper, bricks and sand. Then step back and see what visits.

PATIENCE: Although we often like to have immediate results, watching a garden grow and develop is rewarding in itself. If you do want quick coverage, try planting acacias and the pos species which give quick growth while slower plants are establishing. Although the quick growing plants are generally shorter lived, they will provide food while they prosper.

DID YOU KNOW? Blue-tongued lizards, and other slow-moving animals, are often attacked by domestic dogs and cats, and if not killed outright, can die from the stress of the attack.



Image: Blue-tongued lizard (Image: C) David J. Marshall 2019



Australia has a variety of unique plant and animal species that are becoming increasingly threatened through loss of habitat and food availability.

By choosing indigenous plants for your garden, from your local native nursery, you will be providing habitat and a food source for many different animal species, as well as enhancing local biodiversity.

Create a backyard, balcony, or small area of habitat to connect with nature and protect urban biodiversity.

First, study and understand your site conditions. Then, experiment by introducing plants and habitat that suit your area. In time, you will be amazed at the visitors you have encouraged. You will be rewarded with fascinating and beautiful creatures that bring you and your family great joy as they feed, bathe, drink, nest and make themselves at home in your garden.

In doing this, you will be participating in the effort to reward, protect, conserve and encourage our local flora and fauna.

We acknowledge the Wurundjeri people of the Kulin nation who are the traditional owners of the land on which we live, work and grow. We pay respect to their elders past, present and emerging.



Image: New Holland Honey Eaters (C) Peter G. With 2016



KEY POINTS TO REMEMBER

STAGE IT:
If you are incorporating or designing a new garden, remember that the existing plants are providing habitat. So, stage your work to ensure you are not displacing wildlife.

DIVERSITY:
The more diverse the planting, the more wildlife you will attract. A broader range of wildlife will occur where differing plant communities merge - where forest meets grassland or grassland meets scrub-land - as there are more opportunities for food and shelter.

BALANCE:
Creating habitat is about balance - plants in association with insects, water providing hydration and homes, birds and animals living with the available site, soil, nutrients, rainfall and sun.

EXCESS:
Using layers of leaf litter, ground-covers, grasses, shrubs and trees will provide a diversity of food.

NATURE'S ART:
Rocks, boulders and logs can look really great in the garden when planted around them, they also double as habitat, basking spots and protection to a wide range of animals.

ADVERTISE:
Mass flowering of the same plant species at the same time will be more noticeable to those walking by, as well as being an incentive for wildlife to visit.



KEY:
A. Retain/plant native trees to provide shelter, homes and hollows.
B. Install nesting boxes for those animals that like to use tree hollows.
C. Provide a bird bath for drinking and bathing. Keep the bath high off the ground to protect birds from predators, such as cats and dogs.
D. Place logs around the garden for the shelter of animals and insects. You will be surprised how good they can look.
E. Include rocks for homes and basking areas for reptiles and frogs.
F. Supply different food sources - fruit, seed, pollen and nectar.
G. Introduce a pond or wetland to provide a home for aquatic species, or drinking water for other animals. Put a log or rock platform on the edge to prevent animals from drowning.
H. Use sandy loamy pebbles, mulch and leaf litter to provide nesting habitats for native bees, other insects and reptiles.
I. Protect small birds, mammals and reptiles from predators, with dense shrubbery.
J. Include grasses - Poa labillardieri, Dianella, Lomandra and Themeda - to shelter insects and small skinks, and to provide food for seed and fruit-eating wildlife.
K. Introduce a native lawn to provide foraging areas for many birds. Try grasses such as Microbania stipoides and Zoysia macrantha.

DEVELOPMENT AND THE ENVIRONMENT.

Rapid development and population growth has increased pressure on our native wildlife. Native animal habitat has become more fragmented and isolated, making it difficult for wildlife to breed, forage, find shelter, and move across the landscape. The number and diversity of species has declined as a result.

CLIMATE CHANGE

Changes in our global climate are affecting our natural environment due to:
• less rainfall
• more hot days, and heat waves
• more intense storms

As it is difficult for plants and animals to adapt quickly, biodiversity is lost.

PEST ANIMALS

Foxes, rats and Indian mynas are a large proportion of the pest animals found in urban areas. All are incompatible with establishing a habitat garden. They destroy native habitat and so cause a decrease in the number and diversity of native species.

WEEDS

Non-indigenous plant species can have a serious effect on the environment. They compete with indigenous plants for space, nutrients, water and light, causing a reduction of habitat for wildlife and a loss of biodiversity.

Seeding vegetable plants should be kept away from storm-water drains to prevent the transport of seeds into waterways. The seeds of parsley, fennel, tomato and celery are easily spread by wind and water.

Succulents have no value as a food source for wildlife: their sharp edges can pose a danger. Euphorbias are highly toxic to humans, pets and wildlife.

Herbicides, pesticides and fertilisers used in the garden can enter the storm-water system, ultimately polluting the local waterways and harming plants and wildlife.

BE CAREFUL

When riding your bike, driving your car or walking in parklands be observant as animals can cross our path and become severely injured.

If in the event that you see an injured animal, make sure to report it to a local wildlife rescue organisation like Wildlife Victoria 03 8400 7300



LEARN ABOUT LOCAL NATIVES

Indigenous plants are those found within your local area. It is important to protect these plants. Planting them around your home and streets will encourage local animal species which rely on them for food and shelter. The plants themselves rely on these species to be pollinated.

Here is a list of some indigenous plants that will help support your local wildlife.

FOOD	FLOWER	FLOWER	SHELTER
Grevillea ramosissima Rosemary grevillea	Polkyssomen multifida Cot flower daisy	Bulbinella bulbosa Bulbinella daisy	Hydrocotyle peltata Pod umbra grass
Bankia marginata Silver banksia	Chrysocephalum occidentale Yellow buttons	Pyromorpha glaberrima Drumsticks	Allocasuarina verticillata Drooping she oak
Billardiera scandens Apple berry	Kemedia prostrata Russet heath	Glycine clandestina Love creeper	Encyrtus leucocystus White ipohait
Bursaria spinulosa Sweet Bursaria	Convolvulus angustifolius Australian bind weed	Crispedia variabilis Hilly buttons	Lucalyptus viminais Manna gum
Ochroa ramulosa Twiggy daisy-bush	Correa glabra Rock Correa	Indigofera australis Austral indigo	Hilaka decurrens Needlewood



WAYS WE CAN PROTECT WILDLIFE: PETS

We all love our pets but domestic cats and dogs pose a serious threat to wildlife because of their natural hunting instincts.

It's all about being responsible and here are some ways we can help our local wildlife from being predated on. Not only this you are protecting your pet as well.

- If you love your cat, keeping your cat indoors will protect both it and local wildlife.
- It is advised to always keep your cat indoors. Cat curfews don't work unless you are watching it at all times. People think that bringing their cat in at night when native animals are most active will protect them however, birds are usually hunted during the day especially dawn & dusk so it is important that cat curfews include the early morning & evening period.
- Feeding your pets indoors will help prevent vermin such as mice, rats, foxes and Indian Mynas from coming into your garden and reproducing.
- Unless you're in a dog park, ensure your dog is on a lead when in parklands. Parklands around Merri and Darebin Creeks have many native animals that are chased, caught and killed by dogs.
- De-sex your pets to prevent unwanted litters and save our wildlife.

MYTHS

- Bells on collars do not stop cats from predation. Cats learn to walk silently with a bell.
- Night curfews don't stop animals from predated on wildlife, cats and dogs adapt to the times they are given to get up to mischief.



HOLLOWES

- Did you know it takes 90-100 years for small hollows to form in trees, and 200 years for larger hollows?
- In Australia many native species need tree hollows: 17% of bird species, 42% mammals and 28% reptiles. (Gibbons and Lindenmayer 1997)
- The number of available hollows has decreased because of the removal of large trees. If a tree does not pose a threat to you or others, try not to remove it as it supports a wide variety of animals. If you need to, replace the hollows with nest boxes for the species in your local area.
- Fallen branches and logs are essential habitats for small mammals, insects and reptiles.



Image (C) Bill Howard 2011



NEST BOXES

Many of our Australian animals shelter and nest in tree hollows. Unfortunately, with deforestation and urbanisation, the number of old trees with well-developed hollows have declined. You can help our native animals by providing species specific nest boxes. To discover a range of nesting boxes visit www.litroba.edu.au/wildlife.

BAFFLES: If you have an Indian Myna problem in your area, select boxes that have an opening small enough to deter those birds. Or, ask if you can get boxes fitted with a baffle. Mynas displace young chicks by throwing them out of the nest. They also destroy newly-laid eggs and attack sitting parents.

INSTALLATION GUIDELINES:

BOX DESIGN: Ensure that you know the species you are attempting to accommodate when you choose the nest box. The key to choosing the right box is the diameter of the entrance.

FIXING: Boxes should be installed at least 2-5 metres from the ground. To avoid damage to the tree and nest box, make sure that the box is secure and that it allows for tree growth. If there is too much movement within the box, animals are less likely to move in.

ASPECT/SUN: Nest box openings should face the direction of least exposure to wind and rain. Place the box in dense shade and/or on the southeast side of the tree.

MAINTENANCE: Regular inspection of the condition of the box is essential. Pest animals may be present. Nest box materials can deteriorate over-time. Lids may become damaged. However, keep internal inspections to a minimum to avoid disturbing resident animals.

BE WARY OF THE INDIAN MYNA

Indian Mynas are an introduced species that display bullying behaviour. They have adapted and grown in numbers to become a severe problem as they out-compete with our native species. If Mynas enter a nest box occupied by native species they can throw young chicks out of the nest, destroy newly-laid eggs and attack sitting parents.

WAYS TO HELP OUR WILDLIFE FROM INDIAN MYNAS

- Myna's wait for the parents to leave their nest before destroying the eggs & if there are chicks present they will throw the young out of the nest.
- use Myna traps. They especially prefer red dry cat food.
- deter Mynas by planting every three metres. Mynas love lawns and open spaces.
- provide your hens with feeders that they open themselves to prevent Mynas and other vermin eating their food.
- captured Mynas can be taken to you local vet to be euthanised.



WEEDS

Avoid planting environmental weeds.

Weeds are a problem as they can spread rapidly and out-compete indigenous plants for light, water and nutrients. This results in a loss of habitat for wildlife, and of biodiversity. When choosing plants, check their weed potential and so prevent the spread of existing and new weed species.

For information about weeds, visit Weeds Australia: www.weeds.org.au

WEED	NATIVE ALTERNATIVE	WEED	NATIVE ALTERNATIVE
Succulents	Pig face Carpenter's passion	Gozanum polyanthum Box tree	Magnolia salicifolia Magnolia
African Lily Asparagus spp.	Flax lily Dianella spp.	Vinca major Greater periwinkle	Native Violet Viola hederifolia
Wintering grass Panicum spp.	Cat's claw Dianella	Forest Dianella	Nyctanthes arborescens Purple leaved
African Daisies Gazania spp.	Paper daisies Conoclinium villosum	Vertical fern Asplenium adnigrum	Small tree Ptilinota hana
Gaura grass Gaura lindheimeri	Trillium plant Stellaria crumbeolata	Lobelia spp.	Black lily Lathraea squillaria