

When my children were a little younger and I was scrambling for ideas such that I did not wreck their lives completely, I found a concept in a book, I cannot remember where, that claimed, 'to embrace the mess'. The idea was that while basic cleanliness for health should be respected, you should give your children your time and concentration rather than sweating about a certain amount of untidiness. I think the same should be said about gardening and wildlife gardening in particular.

Very uniform, neat backyards, manicured to an inch of their life, might look nice, in the pages of a boastful Home and Garden magazine but they could never be accused of looking natural.

Natural places lack our idea of order. Nature likes a bit of a mess. Certain creatures are very fond of places that we might consider unsightly. So, in your backyard you should have an invertebrate breeding centre, also known as a compost bin. The majority of your kitchen waste and garden waste will be biodegradable and will break down with insect and fungal help within a compost bin.

Separating your rubbish – recyclable in its bin, kitchen waste in a kitchen tidy – saves our landfills and will enrich your yard with more invertebrates and ultimately humus for your vegetable gardens.

Piles of cuttings, fallen branches where possible should be cut up and placed in piles within your garden. Use screens of vegetation if you like. A range of small frogs, reptiles and perhaps some mammals will utilise these spaces.

In a similar vein, a shallow ditch can be dug to place waste vegetation in. The ditch will encourage excess water to enter, therefore speeding the rotting process. I have heard but not yet practised, that this process is a good addition near fruit trees, being a constant source of 'green fertilizer'.

Messy corners of the garden, where grass grows long and shrubs remain perennially unpruned, are not an issue for wildlife. The very reasons that they are unattractive to the neat freaks among us, make them more attractive for a range of animals. The fact that they remain undisturbed by people is also useful...

Leave a wild corner

Great for so many species, leaving a small patch of your garden to go wild provides an undisturbed space where invertebrates and small mammals can shelter, nest or feed.





If fifty percent of your backyard is given over to planting locally native plant species what should be left in the other fifty percent?

Backyards need space for our favourite exotic plants, our Hills Hoist, some essential lawn and, to my mind, most importantly, **herb and vegetable gardens and fruit trees.**

Producing some of your own food in your garden should be a basic for everyone!. Even if your garden supplies you with a supply of easy to grow herbs and greens; lettuces, spinaches, silverbeet, rocket, etc – it will save you money – from both food and travel. And saving travel reduces fossil fuel burning.

In addition, it greatly reduces plastic waste; every

good handful of garden greens, has saved a plastic bag from the landfill! Further, it will encourage you to venture more often into your garden and thus enjoy the constant but sometimes subtle changes there. Fruit Trees in our sub-tropical climate are easy to grow. Grow any citrus varieties and you will invite the spectacular Orchard Butterfly into your garden as it is attracted to the leaves to lay their eggs. Birds will love your mulberry tree's fruit and some are silly enough to swipe chillies from your bushes.

Having fruit and vegetables plus occasional surplus allows and encourages sharing and exchange with neighbours. Indeed, if my neighbour had a lemon tree then I would plant some limes and oranges and prepare for some exchange.

Obviously, fruit and vegetable growing command their own volumes; as does permaculture. We felt that it was important to remind people that having a backyard for biodiversity does not necessarily exclude growing fruits and vegetables for your table.

Fruit Trees & Vines Suitable for south-east Queensland

- avocado
- banana
- blueberries
- custard apple
- dragon fruit
- fig
- grapes
- guava
- lemon
- lime
- lychee
- macadamia
- mandarin
- mango
- mulberry
- orange
- passionfruit papaya or paw paw
- persimmon
- pomegranate
- pomelo
- soursop
- tamarillos



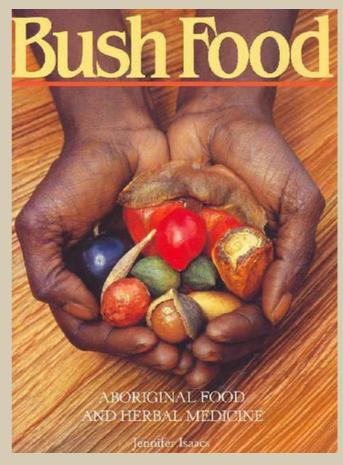
Gardens exist for many different purposes.

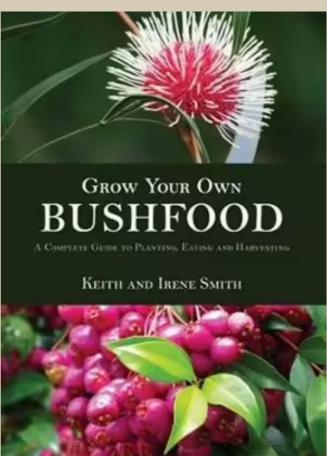
We envisage our gardens as places where we can make the first connections with nature for ourselves and importantly our children. Gardens have been, and are, cultural places. No one who has enjoyed a backyard BBQ or party with friends can argue. Where our gardens are located today were once Aboriginal lands - cultural places - where aborigines lived, loved, hunted and gathered, sang, laughed and celebrated. Their culture endured such a long time because they were equipped with ecological knowledge, patiently handed down through generation after generation. Indeed, ecology was so important, so central to Aboriginal life, that it was embraced in part into their religious beliefs. Animals, plants, and landscapes often being elevated into the status of the sacred.

Today Aboriginal history and culture are a central part of Australia's heritage. It is important for all Australians to respect that heritage and the indigenous elders of these lands, past, present and future.

Aboriginal culture and heritage is often difficult for all new Australians to get their heads around as it is complex. Indeed, in the area we are defining as SE Queensland there were and are many language groups.

There were a variety of indigenous people within SE QLD, pre settlement / invasion. Each group was distinct, with an identifiable language and culture, and its territory having distinct tribal boundaries that the people would recognise within the lands. The groups, listed roughly north to south throughout South east Queensland, included Kabi Kabi [Gubbi Gubbi], Waka Waka, Jinibara, Kombumerri, Ngaraghwal, Mununjali, Wangerriburra, Quandamooka, Yuggera, and Ugarapul. Backyard gardeners can show their respect to Aboriginal heritage by choosing plants that had importance for our local aboriginal groups. I am talking about, of course, Native Food Plants. Placing these plants in your garden and appreciating the food that they supply is a natural step to quietly respect our region's indigenous heritage and the traditional owner's knowledge of ecology. And you are contributing positively to the local biodiversity as well.





TEN NATIVE FOOD PLANTS

It is a vast understatement to say that suggesting merely ten native food plants for the vast area of south east Queensland is adequate. It is not. We will suggest a variety of references at the end of this list such that people can pursue this great interest further. It would be wonderful for all Australians to grow more native food and also gain an appreciation for how the food can be used, however, this is a subject, far beyond my expertise..

- 1. **Lemon Myrtle** [Backhousia citriodora]—This attractive shrub / small tree is native to coastal SEQ, and its leaf is used to make flavour tea blends, in addition to Thai curries [a kaffir lime leaf replacement] and some sweets.
- 2. **Native Raspberry** [Rubus rosifolius] This scandent shrub is native to eastern Australia and produces its red fruit over summer.
- 3. Australian Finger Lime [Citrus australiasica] This is a native citrus shrub found in rainforests. Its fruit can be used in a range of drinks and desserts plus accompanying seafood.
- 4. **Davidson's Plum** [Davidsonia pruriens] A rainforest fruiting tree whose dark plumsized fruit can be eaten straight or, better still, used in jams and sauces.
- 5. Sterculia quadrifida (Peanut Tree, Redfruited Kurrajong) Deciduous tree with large, leaves, heart shaped at the base, small yellow, lemon scented flowers, 1cm long, in summer, and large, very ornamental orange/red fruit to 8cm long, red inside, woody, with black, edible, peanut-flavoured seeds inside which are traditional bush tucker.

Pictures - Top to Bottom. Top row - Bunya nuts, White Midyim Berries, Second Row - Lemon Myrtle Tree, Lemon Myrtle Flower, Midyim plant form. Third row - Riberries, Riberry leaves and fruit. Bottom row - Peanut Tree plant, fruits and black seeds. [E.Anderson]

















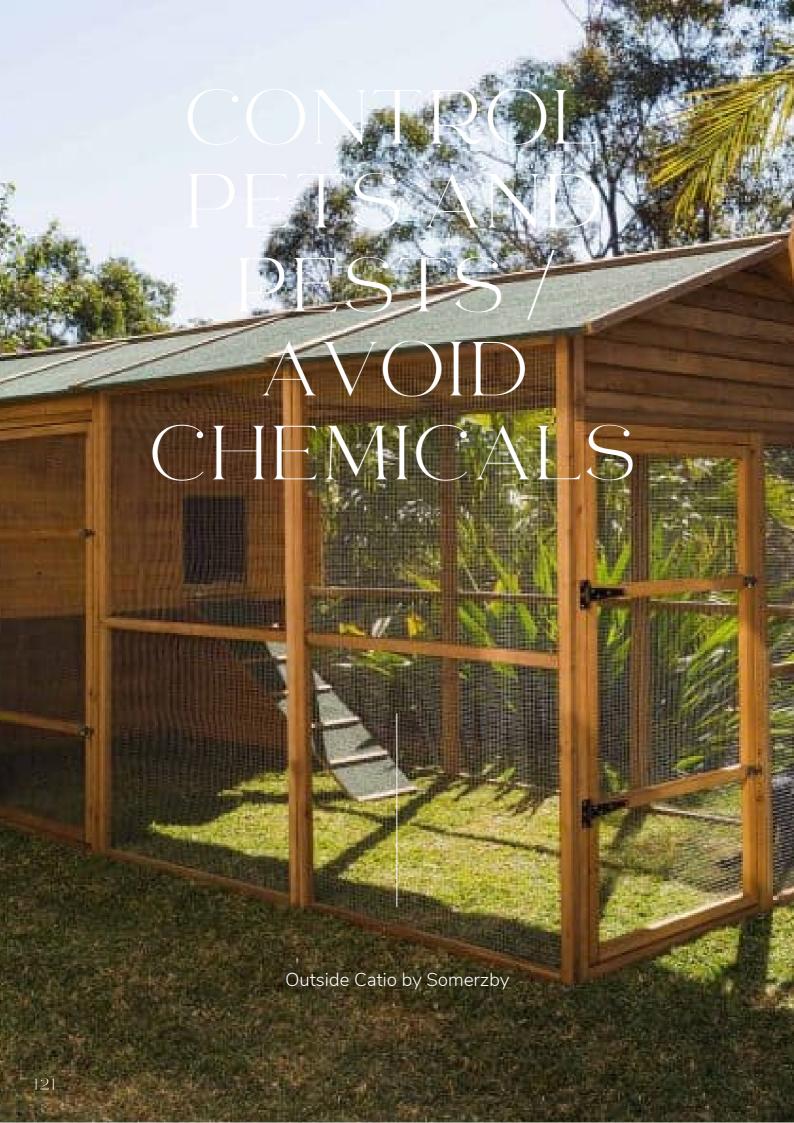




TEN NATIVE FOOD PLANTS

- 6. **Midyim** [Austromyrtus dulcis] A coastal shrub often located behind sand dunes. It makes a great ground cover with a two metre spread and grows to a height of 1m. Sweet white edible berries are produced through the late summer months.
- 7. **Riberry or Small-leaved Lillypilli** [Syzygium luehmannii] is a medium to large tree. The fruit has a refreshingly tart, spicy flavor that has a hint of cloves and cinnamon. Fruit can vary in taste depending on selection. The fruit is used to make distinctively flavored jams, sauces, syrups, chutney, cakes, and even, salad dressing.
- 8. **Native Celery, aka Sea Celery** [Apium prostratum] Biennial or perennial herb native to coastal areas of Australia. White or pink flower clusters in spring and summer with broad or narrow divided leaves. Edible, named for its celery-like flavour. Viable substitute for parsley or celery.
- 9. **Warrigal Greens**. [Tetragonia tetragonoides] Also known as New Zealand Spinach. This robust, succulent prostate herb or small scrambling or sprawling shrub has fleshy alternate, light green leaves that are usually triangle or arrow-shaped and up to 12cm long. The young shoots can be cooked and eaten as a green vegetable; it is not recommended that you eat the leaves raw. Captain Cook had it cooked and fed to his crew. The early botanist, Sir Joseph Banks, thought it almost as good as his spinach from home.
- 10. **Bunya Pine** [Araucaria bidwillii] [if you have a really large backyard] produces Bunya nuts. These nuts are similar in size and flavour to chestnuts and were a feasting food of Aborigines in the Bunya Mountains of Southern Queensland. Each nut is encased in a thin woody shell which can be sliced with a knife after boiling the nuts and while they are still hot. The shelled nuts can then be blended and re-fried to make a pastry, used as a potato substitute in curries and stews, minced for use in chocolates, nougat, ice cream or other desserts and even preserved in sweetened rum. I have used them to make an Aussie style Massaman curry, with Kangaroo meat, Bunya nuts and Macadamia nuts good stuff.

<u>Noosa Land Care has produced a very useful six paged document</u> describing a good number of south-east Queensland plants that were used by Aboriginal people. Many of the plants are easily obtained from Bush Care Nurseries.



"WE STAND NOW WHERE TWO ROADS DIVERGE.
BUT UNLIKE THE ROADS IN ROBERT FROST'S
FAMILIAR POEM, THEY ARE NOT EQUALLY FAIR.
THE ROAD WE HAVE LONG BEEN TRAVELING IS
DECEPTIVELY EASY, A SMOOTH SUPERHIGHWAY
ON WHICH WE PROGRESS WITH GREAT SPEED,
BUT AT ITS END LIES DISASTER. THE OTHER FORK
OF THE ROAD — THE ONE LESS TRAVELED BY —
OFFERS OUR LAST, OUR ONLY CHANCE TO REACH
A DESTINATION THAT ASSURES THE
PRESERVATION OF THE EARTH."

- RACHEL CARSON, FROM SILENT SPRING 1962

Silent Spring is an environmental science book by Rachel Carson, published in 1962, that documented the adverse environmental effects caused by the indiscriminate use of pesticides. Carson accused the chemical industry of spreading disinformation, and public officials of accepting the industry's marketing claims unquestioningly.

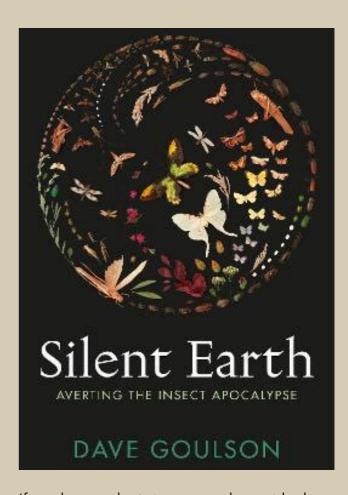
Starting in the late 1950s Carson had focused her attention on environmental conservation, especially environmental problems that she believed were caused by synthetic pesticides. Silent Spring, was the result of her research, which warned the American public of these environmental concerns. The book, unsurprisingly, was met with fierce opposition by chemical companies, but, owing to public opinion, it brought about numerous changes. It spurred a reversal in the United States' national pesticide policy, led to a nationwide ban on DDT for agricultural uses, and helped to inspire an environmental movement that led to the creation of the U.S. Environmental Protection Agency.



So far, in this booklet we have concentrated on what to do, however, there are a few obvious things to avoid. The most serious of which is to avoid using chemicals, especially pesticides and herbicides. The former obviously has been used greatly in the large-scale production of our food and countless millions of insects must have perished as a result of this onslaught. A look down the correct aisle at any hardware would attest that our love affair for destroying insects and other 'pests' with chemicals is not yet over. As has been discussed, if you are a wildlife gardener then you must consider that you are farming insects as the basis for a local ecology. Pesticides used put this farm at risk! For further reasons to become an insect farmer please read Dave Goulson's book, <u>Silent Earth - Averting the Insect Apocalypse</u> [2021] and his book, <u>The Garden Jungle or Gardening to Save the Planet.</u> Avoid, too, using an insect zapper as they destroy all insects with no discrimination!

As an insect farmer you will need to commit to stopping weeds only in environmentally friendly ways. Hand pulling, hoeing, chopping, whipper snipping [using a device that is ideally fuelled by sustainable energy], mulching, are some methods available. I have even heard of a story where a well-meaning husband even gave his wife a scythe for slicing herbaceous weeds as a birthday present. [Perhaps surprisingly they are still together]. Boiling water perhaps can be used, carefully, on some weeds.

Avoid using rodenticides! These poisons can do incredible ecological damage. An anecdote to illustrate the point. Years ago, I was teaching Geography in Townsville and I was keen to place a real-life environmental impact case study in front of my students. With help from the well-known naturalist John Young, we held a field trip north to Ingham to illustrate a story badly titled 'Cane Farmers versus Rodents'. The cane farmers had used rodenticides in their war against the rodents who were eating too much of the farmer's cane. Sadly, a while after using the poisons the problem did not improve but worsened. Why? The poisons affected the rats and then they were preyed upon by Eagles, Hawks and Harriers and, at night, Owls. Young's in nest cameras revealed female owls neatly stripping the intestinal tract from the rats before feeding them to the chicks. Not surprisingly this highly toxic snack proved fatal to the chicks. Soon after the adult owls perished as did the diurnal raptors. These predatory birds ingested a deathly amount of poison and fed them to their chicks. Natural predators destroyed the rats enjoyed a more-than-healthy rebound. Young was eventually consulted, and he suggested putting more and more owl nest boxes to create a higher density of rat predators. It was this approach, working with nature rather than against it, that proved most successful.



If you have rodents in your yard, consider live trapping. This should mean that you only eliminate genuine pest species. Poisons target everything. Death traps, like break back traps, can make no distinction between pest rodents such as House Mouse, Brown and Black Rats and Native species such as Bush Rats, Melomys species and Antechinuses. Check your Australian mammal field guides for the differences between native and pest species.

On page xx some control methods for cane toads were mentioned however there are other introduced species that should cause us some concern. There are a number of introduced bird species: House Sparrows [pictured right], Scaly-breasted Munia, Feral Pigeon, Starling, Spotted Dove and, perhaps worst of all from an ecological perspective - the Indian or Common Myna. The Common Myna is a different bird from the Noisy Miner [sometimes known as the Mickybird] which is a native species and therefore protected. The Common Myna has invaded urban areas and is a successful species due to the ease at which it can adapt and thrive in artificial environments. It is a cavity nester, and this is perhaps where it causes the most trouble. Nest hollows are in short supply and the Myna is an aggressive species that can often out compete native species for these limited breeding locations. Many Council areas are beginning to recognise the ecological problems this species threatens.



Noisy Miner [eBird]



House Sparrow [Ebird]



Common Myna [eBird]

Where there is favourable habitat, Indian mynas can be expected to have the following range of impacts: • reduce breeding success of certain native parrot species. Indian mynas compete aggressively for nesting hollows and can evict native parrots from nest boxes or tree hollows and even break eggs and kill chicks. A pair of mynas can build nests in multiple nesting hollows without using every nest. Such behaviour probably deters other species and maintains a large breeding territory (Pell & Tidemann, 1997a) • compete for tree hollows with other native wildlife such as possums and gliders. Indian mynas can kill small mammals and remove sugar gliders from tree hollows (NSW DPI, undated; Perry, 2008) • act as a potential reservoir for diseases of native birds such as avian malaria (Caughley & Sinclair, 1994) • damage fruit, vegetable, and cereal crops • spread certain weeds such as Lantana camara (DPI NSW, undated) and fireweed (Senecio madagascariensis) (Cunich, 2006) • generate noise complaints in suburban areas, wherever there are large communal roosts • cause dermatitis, allergies, and asthma in people by nesting in the roofs of houses (Brisbane City Council, 2007). Nests built in roofs of houses are also a possible fire risk (Canberra Indian Myna Action Group Inc., undated). from Indian Myna Risk Assessment

How to Get Rid Of Indian Mynas

How to get rid of Indian Mynas around your home or commercial premises:

- 1. The most effective way to get rid of Indian Mynas is to reduce attractions that might encourage Indian Mynas to visit an area. Clear away food scraps after eating outdoors, remove uneaten pet food, cover bins, etc.
- 2. Block holes / areas where Mynas might roost or nest
- 3. Install bird netting to block Mynas access to area roosting or nesting areas.
- 4. Install bird spikes to prevent Mynas from roosting on ledges.
- 5. <u>Trap Mynas using specially designed Myna Bird Traps.</u> Euthanase trapped birds humanely. Picture of Myna trap [right] by **Daily Telegraph.**



In addition to unnecessary chemicals and introduced pests, our pets can put our backyard biodiversity at risk.

Cats and Dogs remain very popular pets. Both are carnivores and many retain strong predatory instincts. They will hunt and kill small animals within your backyard. Dogs, off the leash, will chase birds and wildlife. This is a particularly serious issue for migratory waders who visit our estuaries and seashores over summer and need all of their energy reserves for potentially a 12 000 kilometre return journey to the higher latitudes of the northern hemisphere. Dogs also have contributed to local extinctions of Koala.

Wild dogs, foxes and especially wild cats are among the most serious threatening processes for Australia's native fauna. For more information about this and some of the solutions for biodiversity protection please visit <u>Australian Wildlife Conservancy</u>

Ways to limit the impact of your dog on wildlife:

- 1. Keep your dog on a leash when out walking
- 2. Kennel your dog at night or tie it up.
- 3. Install and maintain a dog proof fence
- 4. Fence off your core biodiverse areas
- 5. Don't let your dog roam.



Cats

Of all of our pets, sadly the cat remains the biggest threat to our biodiversity. Cats have a need to hunt – and often they will hunt even when not hungry. Controlling cats is an essential practice to protect Australian biodiversity.

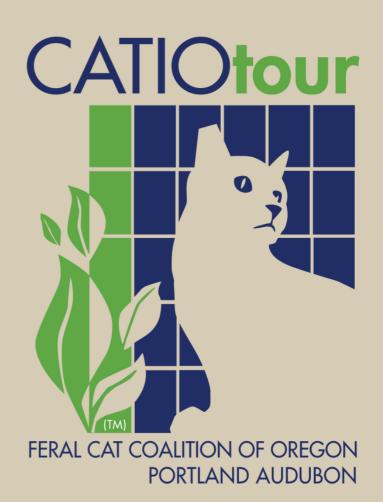
As far as our native animals are concerned it makes little sense to offer distinctions between feral, stray or domestic cats as they all operate as hunters of wildlife. For management, though, the classification makes more sense as it determines what control methods are employed.

The impact of cats is immense. According to Australia's Threatened Species Hub –In Australia every day cats kill: • Mammals – 3.2 million (mostly native species in the bush; mostly introduced species in towns) • Birds – 1.2 million (almost all native species) • Reptiles – 1.9 million (almost all native species) • Frogs – 0.25 million (all native species) • Invertebrates – 3 million.

To begin to solve the issue of cats in urban areas we need to have knowledge of both cats and their owners [or enablers].

In Wellington in nearby New Zealand, as part of efforts to control feral animals there, research was conducted into urban cats and their owners. It was found that cats, allowed to roam, do. After tracking 209 cats, the average range was some 3.28 hectares, with one cat, dubbed, 'Supercat' ranged over 214 hectares! Owners average estimate of predation was a mere five 'prey items per month, based on prey brought home. Clearly their method invites under-reporting.





Cats





Owners were also surveyed regarding their attitude towards their pet's predation, "Do you believe that hunting [by your cat] is a problem?" Sadly only 5% claimed that hunting is a big problem. One quarter of owners claimed that their cat 'didn't hunt'. While another 56% responded that it was 'not a problem' or a 'small problem'. This selfish denial or wilful ignorance is difficult to counter and one would expect to find similar responses here across the ditch.

Counter it though we must.

Responsible cat owners must promote their efforts before more local extinctions of native species occur.

Cats must be registered and microchipped, allowing permanent identification. Your cat should also be collared and tagged. Preferably your cat should be de-sexed before six months of age.

And, importantly, your cat should be kept inside and secured to your property such that it does not

and secured to your property such that it does not endanger native animals. Do not leave uneaten pet food outside as this could attract stray or feral animals to your neighbourhood.

Cat bells have been shown not to be effective in reducing cat predation in the mid term. <u>Cat bibs</u> have been researched and have shown that bird predation is reduced by some 80% and small animal predation by 50%. An 100% reduction can be achieved by using cat runs.

Cat runs can be constructed adjacent to your home so cats can enjoy inside and outside space while still controlled. In Portland, Oregon in the States a group of animal loving cat owners began promoting their cat runs, they termed, 'Catios'. In 2019 they ran 10 tours of a series of local catios and attracted some 1500 cat owners – more than they could accommodate!

Dogs and cats, indeed many domestic animals and birds are great companion animals. These pets when housed, enclosed (fenced off and/or prevented from straying into natural and restored bushland and biodiversity planted backyards) and cared for are wonderful mates and even part of the family and when managed and not allowed to stray as recommended can coexist within a biodiverse backyard.

Another solution to maintain a biodiverse backyard is not to have these pets. If you have children and would like them to enjoy close proximity with animals consider wildlife caring instead. This service will bring you into close contact with a variety of Australian animals and then you may have the pleasure of reintroducing them into the wild when they have recovered.

It is also worth [re] considering a few things that you may have in your house and yard that represent hazards to our fauna. This includes windows, fencing, netting, pools and lighting.

Windows are essential to our homes but do, on occasion, represent a hazard to birds. In my experience a variety of pigeon and dove species are especially susceptible, although I have no clear idea why. There are a variety of potential solutions. Most solutions involve making windows more visible to birds through paint, patterns, screens or inside through curtains and blinds. To the right are examples of bird silhouettes that are said to reduce bird strike. I have, however, heard mixed reports of their effectiveness.

Regarding fencing, the most obvious hazard is barbed wire. This is a particular threat to flying birds and flying [and gliding] mammals. In semi-rural settings this is more common than in urban areas, however, as our towns and suburbs spread residual barbed wire fences could be an issue. Replacing them with plain fencing is the obvious solution. Fences that make it difficult for animals, like large lizards or small mammals to move through the landscape could have small holes or gaps placed to allow this movement. Obviously if there are pets in the neighbour's yard this may not be necessary... For more information please visit wildlife friendly fencing. Netting fruit trees seems sensible, but it may trap flying foxes. This is not good for the flying fox and dangerous for you. Flying foxes may carry a virus [Hendra] that can be transmitted to humans. It can be fatal.

Swimming pools can be a trap for some animals and swimming in a pool with a dead and rotting animal in the bottom can be off-putting so it is a good idea to rig up a small floating island adjacent to the pool's edge where animals can free themselves from drowning. The device, pictured to the right, is available through the internet. Pool covers also prevent animals rom entering or drowning and save you money for water and chemical!

Many of our nocturnal animals like poorly lit places whilst our urban areas have too much light. Screen your backyards from major light sources. Outside lights can have sensors and have timers - thus

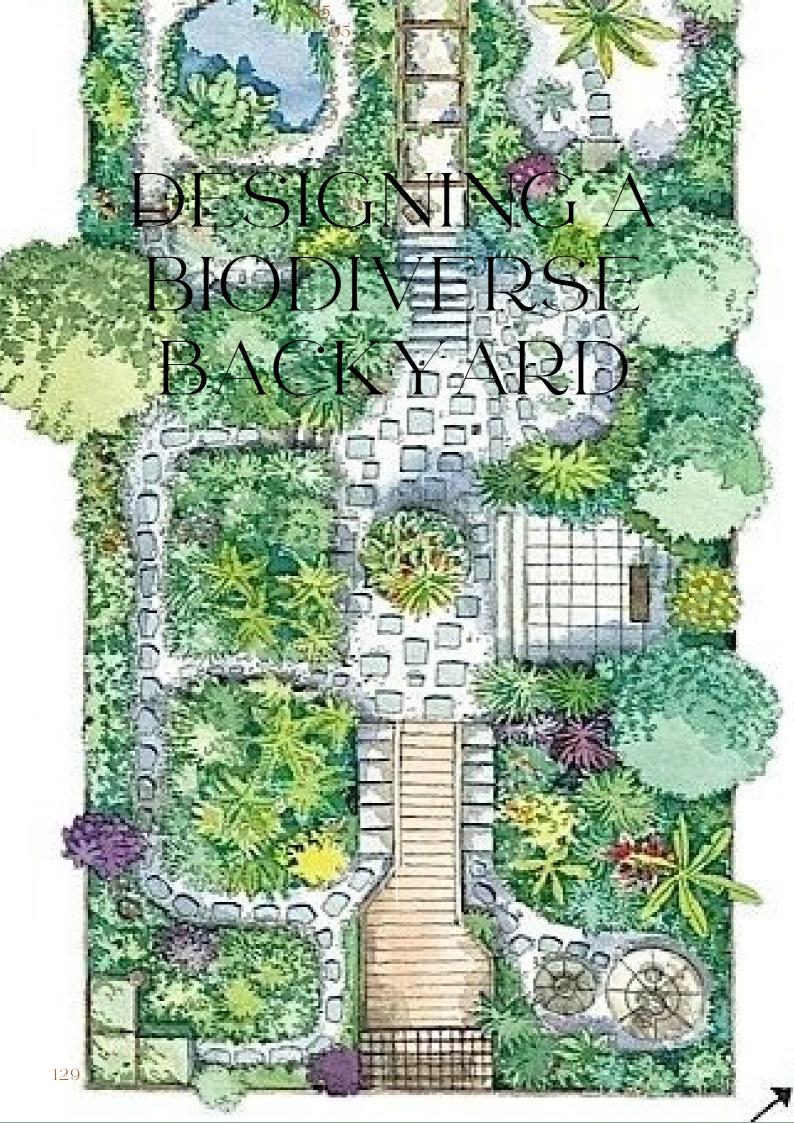
minimising light. Yellow bulbs, rather than white, do not attract insects as strongly so are preferred.





Above: [Ashleigh Johnson] Blossom bat on a barbed wire fence.





"BY FAILING TO PREPARE, YOU ARE PREPARING TO FAIL"

- BENJAMIN FRANKLIN

The first piece of advice is to take your time and not just rush out and buy plants [like I did and still do...].

Walk around your backyard [and front yard and verge] many times. Slowly consider what to keep, what to lose and what else would 'make' your yard biodiverse. Identify weed trees to take down and replace, exotic gardens to transform, lawn to be removed. Are there 'good' trees and shrubs to keep? Where could you position a pond? A butterfly food plant garden? A native food plant orchard? Walk around your neighbourhood, if you are lucky stroll around with someone who knows about local or native plants. See what is there already. Perhaps that will influence your choices.

Sketch your backyard and take stock of everything that you would like to keep and elements that could be removed. Do an overall sketch plan and then split the area up and re-do smaller more detailed plans and potential lists of species and or elements.

If you are motivated to eventually complete a biodiversity 'full makeover', consider thinking about your backyard as you would your house, that is, a number of rooms. And consider just one room at a time. It obviously would be unusual and expensive to redesign every room at once. Complete that one project before going onto the next one. Start with the smallest task and work towards the biggest.

Consider that this can be a total task that might be finished over several years and not weeks, so prepare to be patient. Gardening and gardening for biodiversity will be an ongoing project.

Take photos before you start and document with pictures the transformation. Hopefully these will be documents that will be worth sharing, to inspire others.





Remember the basic principles:

- Grow local native plants
- Provide flowering & fruiting plants, preferably native
- Provide clean water
- Provide species specific shelter mulch, rocks and logs, nesting boxes
- Control weed plant species and remove or limit lawn
- Grow some food, and some native food, for your family!
- Embrace some mess
- Enclose pets and control pests
- Avoid use of chemicals when controlling pests or other uses
- Learn about and celebrate nature!

Consider copying this list and display it above your desk or in your workshop where you will see it often.



These basic principles should work regardless of the size of your yard.

If you are renting a unit or an apartment, you might consider a bird bath on your balcony plus a small number of potted native plants plus a solitary bee hotel. You may even have room for a small potted citrus tree so you can enjoy the occasional visit from an Orchard Butterfly. If there are small gardens in common areas, approach the body corporate, to ensure that they are locally native species. High rise apartments are already used habitat for a range of species including the Peregrine Falcon!

Larger properties allow your imagination to run wild. The larger the land the greater variety of plants you can re-introduce and the larger the number and variety of invertebrate and vertebrate fauna you can enjoy.

In addition to considering what you would like to do, it is worth considering how you should do it. In other words, ask yourself, "What kind of wildlife gardener would I like to be?" Hopefully your answer includes the word, sustainable. A sustainable gardener considers the following: Reduce waste / recycle / re-use.

There are many specific examples that we could provide to illustrate the above but a few:

- If you need to buy soil or mulch buy locally in bulk. This avoids plastic bags and waste. It is also better from an economical perspective.
- Consider going in halves with neighbours if a full load of soil or mulch is too much for you.
 This prevents unnecessary duplication of transport.
- Consider buying second-hand tools for gardening. And recycled [non-treated] timbers for garden edges.



Above - A backyard for biodiversity [The Guardian]





Right - Bargain! Second hand tools!

- If you need to use power tools use battery operating ones that can be charged via your roof top solar panels. In other words, you are not using fossil fuels.
- Compost Kitchen waste becomes tomorrow's soil.
- Use waste cardboard from your local grocery store and newspapers, as a weed mat.
 Cardboard, covered with thick mulch and/ or wood chip is an effective way to lose lawn and create new garden areas.
- Surround your compost area with a Fedge. A Fedge is a cross between a fence and a hedge. Place a series of stakes in the ground and pile fallen branches between them, making an 'untidy fence'. [Remember what I've said about embracing mess...] Once your Fedge is about one metre high you can plant some vines adjacent to it and they can grow using the branches as support. This will hide your compost area and create habitat by using waste products.
- Make garden paths with natural products: lawn, mulch, wood chip, log slices or, if you are fancy, board walks. All of these surfaces have the advantage over hard paving or cement as they allow rain to infiltrate into the soil rather than increase run off.
- Catch some water off your roof for use in the garden. Rainwater is better for animals and certainly better for filling frog ponds. It's free!
- Remember to introduce artificial shelter for animals such as bat boxes, nesting boxes, and native beehives.
- Prevent window bird strike
- Keep your backyard as dark as possible for the welfare of local animals & insects who have evolved needing darkness. Outside security lights, for example, should be motion detected therefore not shining for long periods. Another alternative is to use yellow / orange light rather than white to protect the lives of moths and insects.



Above - A do-it-yourself mulch bin system

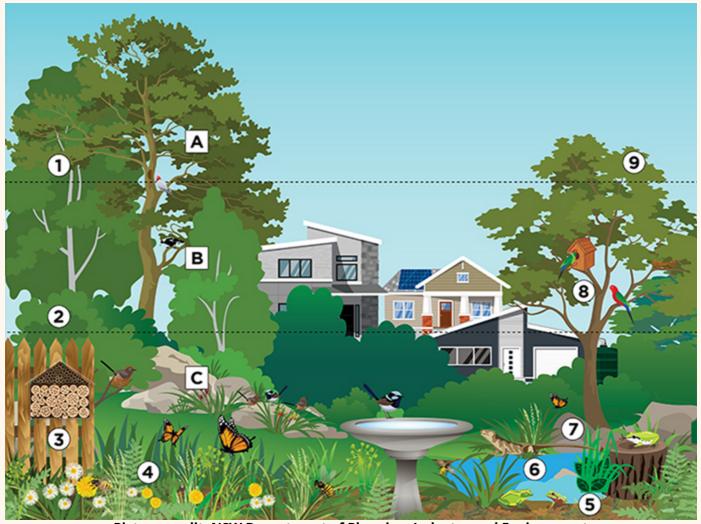


Above - A fedge [from https://www.marklaurence.com/wp/



Above - a modern motion sensor light so your backyard is dark more often.

A Backyard filled with Biodiversity



Picture credit: NSW Department of Planning, Industry and Environment

Key: A backyard garden with three layers: A = canopy, B = midstorey, and C = understorey and groundcover. Growing a range of plants at different heights creates different layers and structures in your garden, which enhances biodiversity and supports native wildlife with food and shelter. Bird baths, insect hotels and flowering plants also help support our native wildlife. 1 = mature tree, 2 = dense shrub, 3 = insect hotel, 4 = flowers, bees and butterflies, 5 = mulch leaf litter, 6 = frog pond, 7 = rockery and logs, 8 = nesting box, 9 = small trees.

For those people who live near the Blackall Range please visit <u>Barung Landcare's Gardens for Wildlife programme</u>. Or the <u>Tasmanian site</u> on which it was based. . Or the <u>Victorian version</u>