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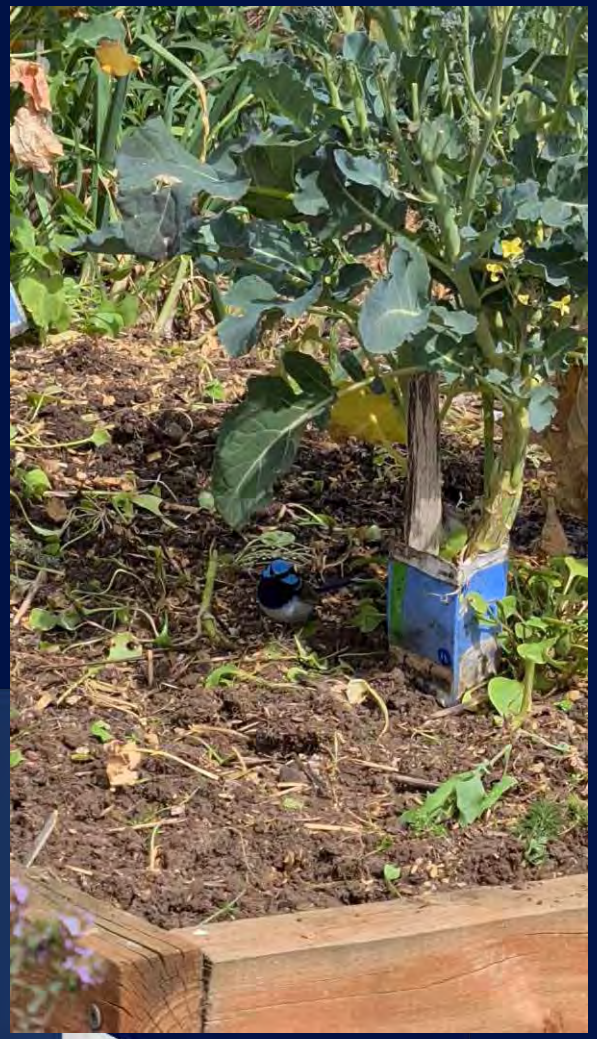
Health and wellness initiatives - Lunch and Learn



'Gardens ARE shared spaces'

Enhance habitat and create havens!

Polly Musgrove

Horticulture Trainer FRS Campus

October 2021

Why should we care about creating a shared space in our gardens?

Green spaces, both natural and in the garden, are good for our sense of well being and connection to Nature or to the ‘wild’
As our landscapes become urbanised, gardens can play an important role as areas for native wildlife with the creation of modified habitat.

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Connecting our gardens to Nature

This talk is going to walk you through the garden and look at how we can bring a sense of a natural environment into our gardens-helping sustain wildlife at the same time.

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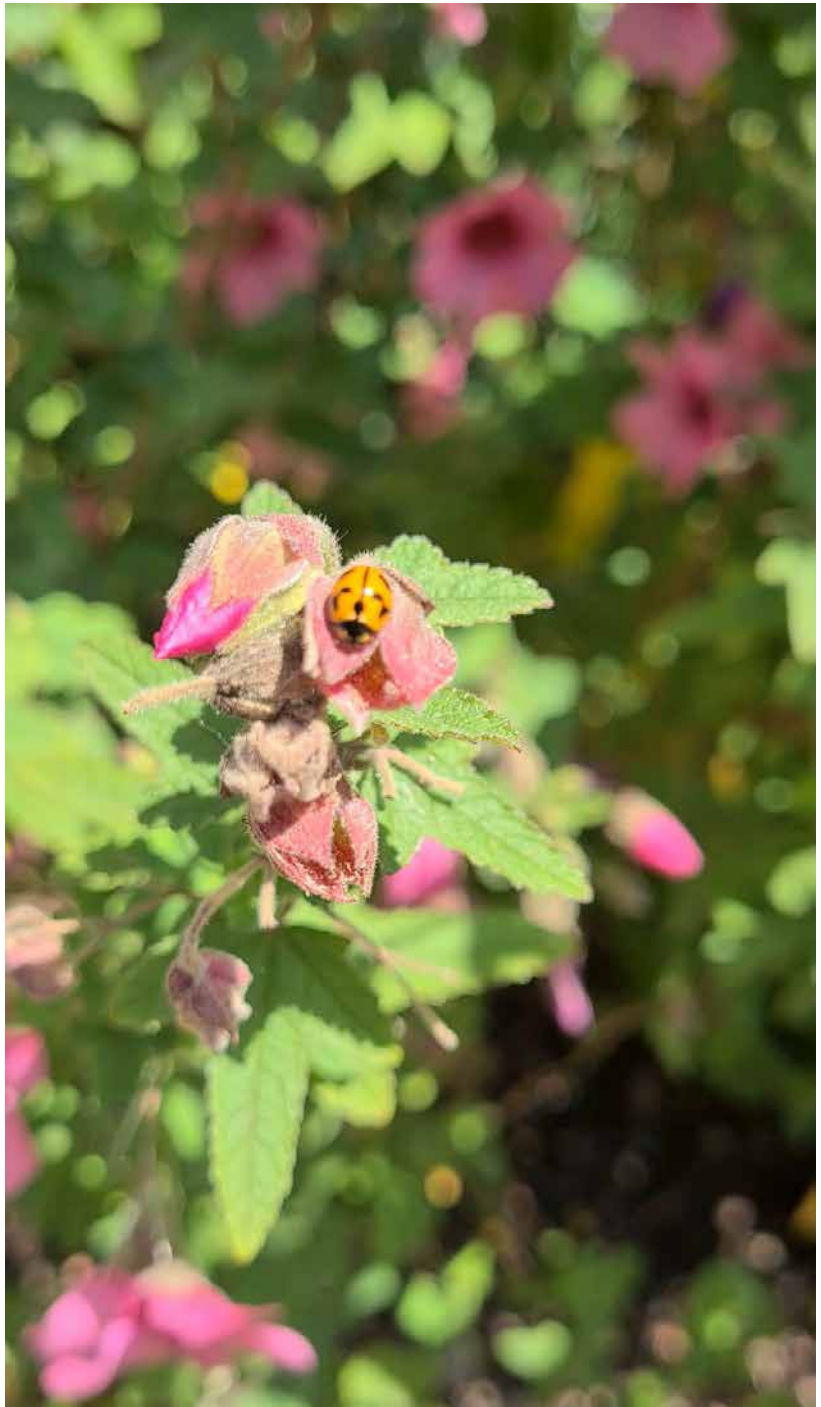
Gardens and Habitat

Most of us understand what a garden is-although there will countless variations on how a garden looks and functions!

Garden (noun) is defined as a piece of ground around or adjacent to a house(Oxford Dictionary)

Habitat is a familiar word to many-but what does it mean actually?

The lady bird might give you a clue!



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Definition of Habitat

‘The place where an organisim normally lives; habitats are measurable and can be described by their vegetation and physical characteristics’ *Harry F. Recher, Daniel Lunney and Irina Dunn; A Natural Legacy, Ecology in Australia;1986*

‘the natural environment in which an animal or plant usually lives ’*Cambridge and Oxford Dictionary*

Informal definition- ‘A persons usual or preferred surroundings’

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Garden + Habitat

The first thing we can do to share space & create habitat is to create **plant diversity** in the garden, attracting healthy interactions between=

- Plants with other Plants-nitrogen fixing roots, self mulching, shelter, shade
- Plants and Soil-shading, cooling, organic matter-nutrient recycling
- Plants and Wildlife-food, shelter, safety

Diversity *leads to good habitat*

The examples show poor garden diversity

Narrow range of plants

Monoculture –formality and control

High maintenance-requires large amount of resources to maintain

Low resources for wildlife-limited habitat

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Who are we sharing our gardens with?

- Family
- Pets
- House mates
- Next doors cat
- Friends
- Family car(s)

Sharing our garden spaces –visitors or residents!

Plants-*including grasses, weeds, woody and non woody plants*

Birds-*both native and introduced*

Small mammals-including rodents, possums

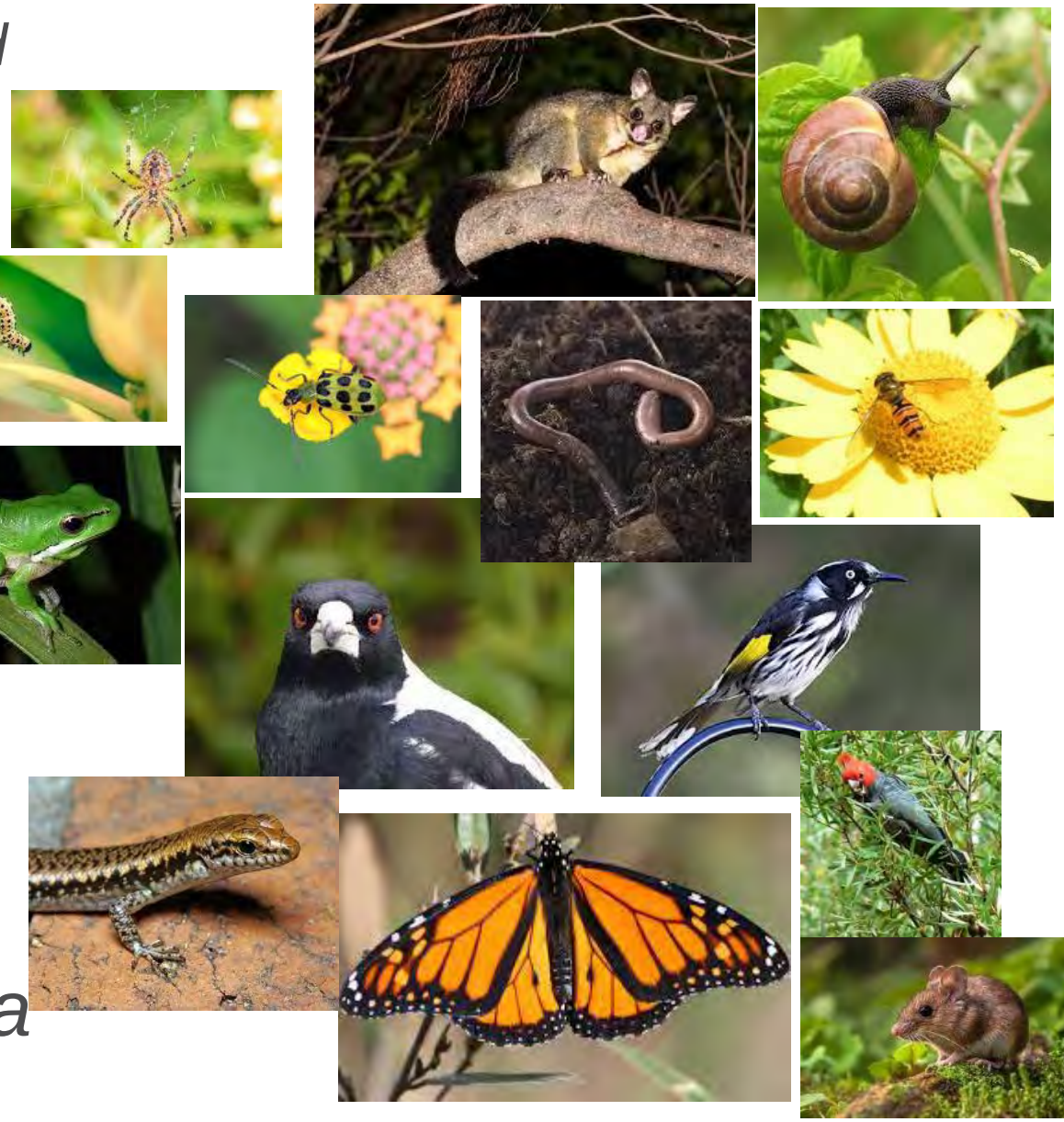
Frogs

Lizards and Skinks

Bats

Insects-*plus arachnids (spiders), butterflies and molluscs such as snails*

Soil dwellers-*worms, beetles, and millions of microscopic bacteria*



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Creating habitat-starting with planting in layers

Plants are the most obvious part of the garden for us to observe and to create changes by our choices.

Plant diversity is needed –lots of different forms, shapes, flowering seasons, canopy density, leaf shape, fruits and seeds-all resources for our wildlife!

Choosing plants for the garden

Any plant can create habitat! It is the diversity that is important-not the genus. Plants from South America or Europe can provide food and shelter or offer a resource to wildlife. Compromise is better than zero diversity!

knowledge comes through observation of wildlife in your garden

Learning to create layers is a fundamental part of sharing your garden.






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Indigenous plants for Ballarat gardens

www.federation.edu.au/ipbg

If you *can* plant local plants-then this is ideal for local wild life as they have evolved with these particular plants-and helps survival of our indigenous flora as well as fauna.

Indigenous Plants for Ballarat Gardens is a joint project of Environmental and Conservation Science at Federation University and City of Ballarat.

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Vegetation Layer principles

Illustrated are the different layers in a forest ecosystem- these vegetation layers can be overlaid in our domestic gardens

Perennial Garden beds as habitat?

Layered planting and diversity

This can be done using native plants or a mix of native and exotics

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The more vegetation layers there are, the more diversity will exist-these layers provide niches of habitat in lots of different ways for a variety of life forms.

These layers provide resources for wild life such as shelter, nesting sites, food supply, nesting materials, look out spots, social areas.

It may be that when you look at your garden in this new light, your observations may show that you already have layers in place!

Ground level-the soil surface

Here you might see=

grass, mosses, fungi, organic debris such as bark, twigs, leaves, or perhaps it is a blanket of bark mulch.

This is where=

- plant roots extract soluble nutrients & anchor themselves into the earth,
- fixing nitrogen with specialised roots
- beneficial fungi- the soil zone is a complex and fragile ecosystem that is essential to all plant life.
- Insects and beetles, spiders, worms and may others form an essential part of the food web

A healthy soil supports a healthy garden! Soil supports all life-so your habitat garden starts here

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Nurturing the soil

Bare soils

- Dry out-heat up quickly
- Low nutrients
- Prone to erosion
- Weed infestation
- Minimal biomass (living matter)

Covered Soil

- Retain moisture
- Buffer soil temperature
- Good nutrients
- Out compete weeds
- Diversity of soil MO

Covering soil includes

- Mulches
- Composts
- Allowing natural debris to lie on surface
- Dense planting

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The understorey –ground covers, perennials, grasses, ferns

The next layer above the soil level will be the ground cover plants, protecting the ground by shading and covering, keeping the soil from heating up in the hot seasons, from freezing in the cold seasons. This ground cover layer can supress weeds by forming a **living green mulch**. Here are some very commonly available ground cover plants that will provide this layer

Creeping Boobialla

Scaevola (Fan Flower)

Dianella(Flax Lily

Themeda (Kangeroo grass)

Banksia-ground cover

Succulents are useful flowers for insects too- often flower when little else is

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Low ground covers, perennials, succulents

Examples of

vegetation layering

Understorey

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Low ground covers, perennials

Habitat

Garden

bed

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The mid storey-middle layers

Silver eye in Kangaroo Apple

This is usually the shrub layer-woody plants of varying height and forms-and form a very important part of our layering.

By choosing a selection of shrubs suited to the soil, light levels and space available, we can create important habitat as well as interest and seasonal displays for ourselves.

Young planting of shrubs densely planted-all suited to open site and prevailing winds, acidic soils-mainly indigenous plants. Smaller birds will use this sort of planting for food, cover and nesting. And microclimates created enhance habitat too.

Shrubs

Examples of vegetation layering

Mid storey

Leaves and flowers, fruits and seeds across a range of seasons-breeding sites –nesting sites

Wallaby grasses provide seeds for local birds and shelter for tiny critters among the tussocks

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Eastern Rosellas-foraging on a frosty morning

Many Parrots and other seed eaters such as native pigeons love the seed from native Tussock grasses that used to make up so much of the landscape here and has shrunk to less than 1 % and can only be found in small pockets now.

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Shrubs

Mid storey

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Scale in Layering

Grasslands will still have vegetation layers-just on a different scale.

It will be the same in your garden-it is not just trees that form the upper canopies-it could be tussocks of Mat Rush or tall Grasses as well as shrubs

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Here are some very commonly available middle layer woody plants and perennials that will provide good biomass and resources in your habitat garden-there is a lot available!

Lomandra (Mat Rush)

Dodonea viscosa (Hop Bush)

Acacia cognata

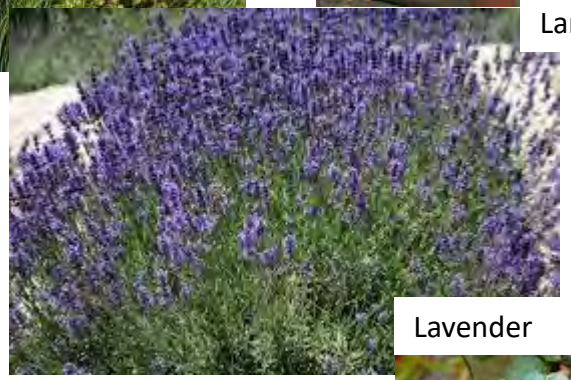
Abutilon(Chinese Lantern)

Hakea

Grevillea

Prostanthera (Mint bush)

Goodenia ovata



Lavender

Correa (Native Fuschia)

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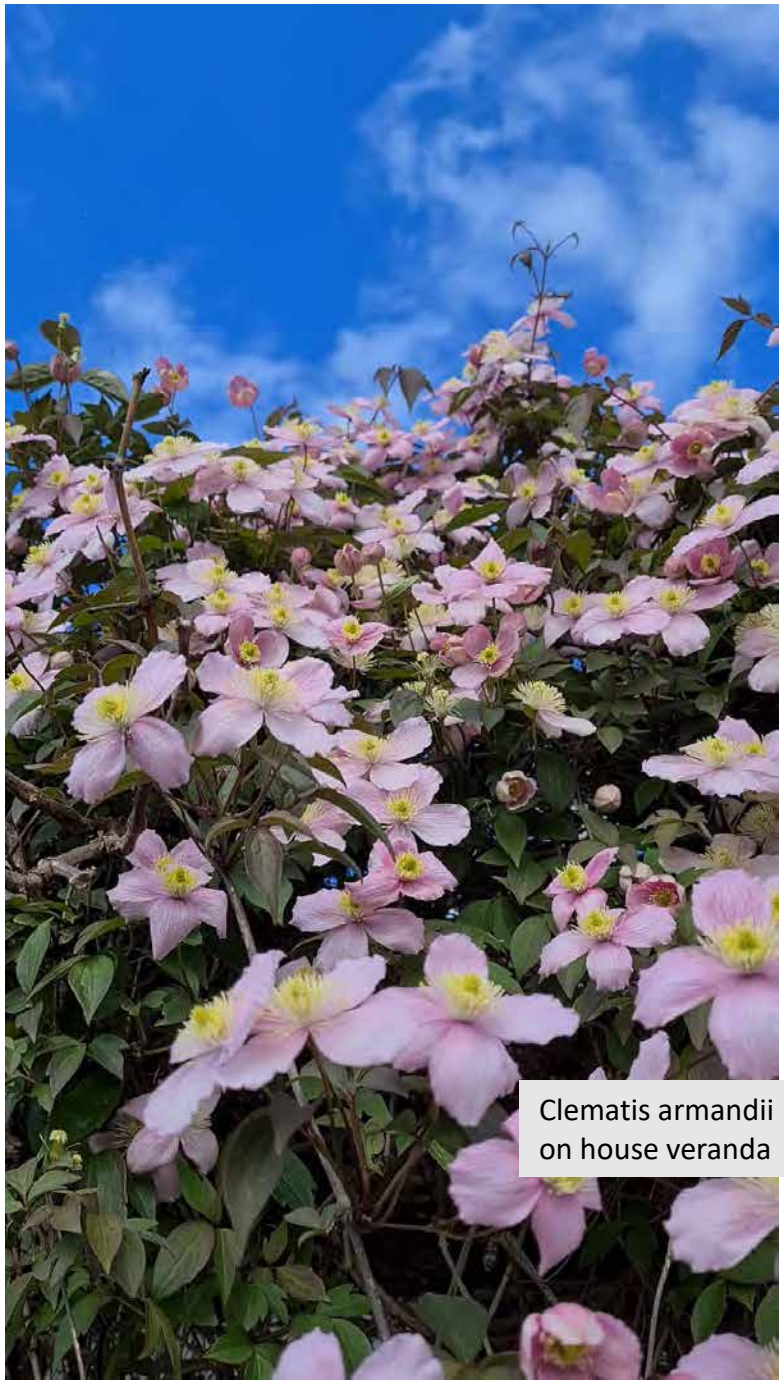
Climbers

Climbing plants are really useful in the garden- not only for clothing ugly fences or structures, but for the extra layers they add in to the garden



Clematis armandii on house veranda

Clematis microphylla on Acacia pendula

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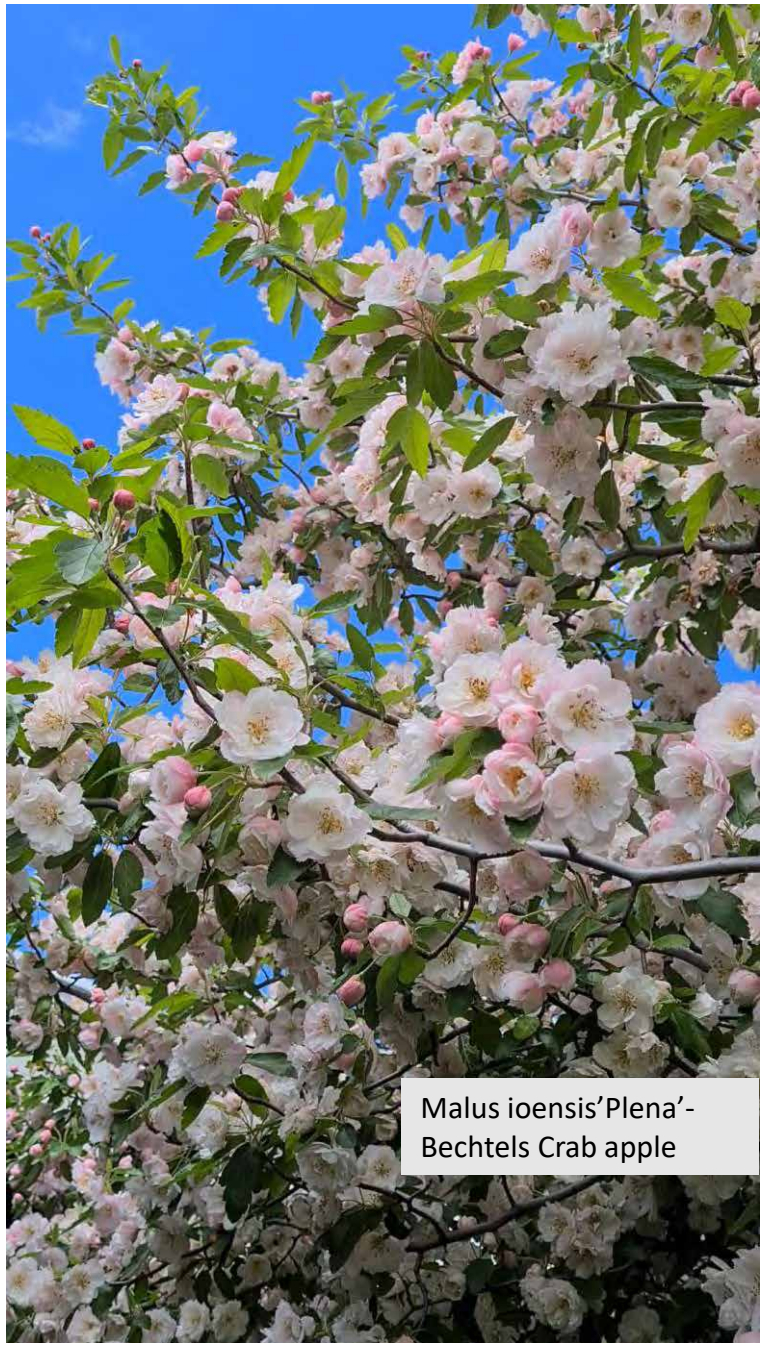
Upper storey level-the canopy

This is the layer that is commonly the tree canopy-but it can be the tallest shrub or perennial-whatever the upper point of the planting happens to be.

This is where vantage points, feeding zones and other resources exists for our wild life, as well as providing shade, shelter for other plants.



Malus ioensis'Plena'-Bechtels Crab apple

New Holland Honeyeater in tall shrub layer

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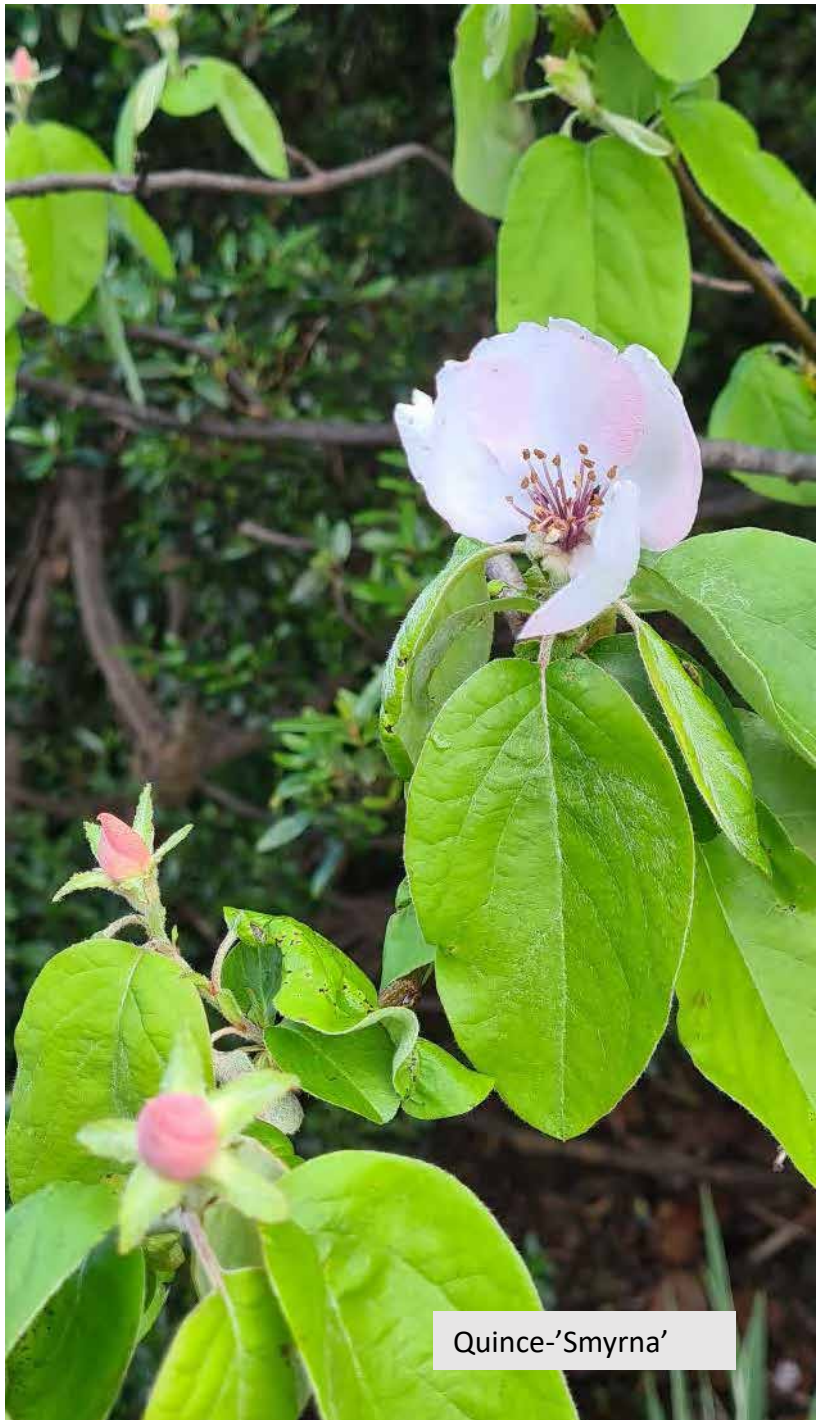
Many options for the upper canopy-Trees of varying heights and form, large-native or non native-

If there is room for a tree or trees in the garden, choose for the resources they can offer to your garden and to the wildlife

Eucalyptus caesia



Quince-'Smyrna'

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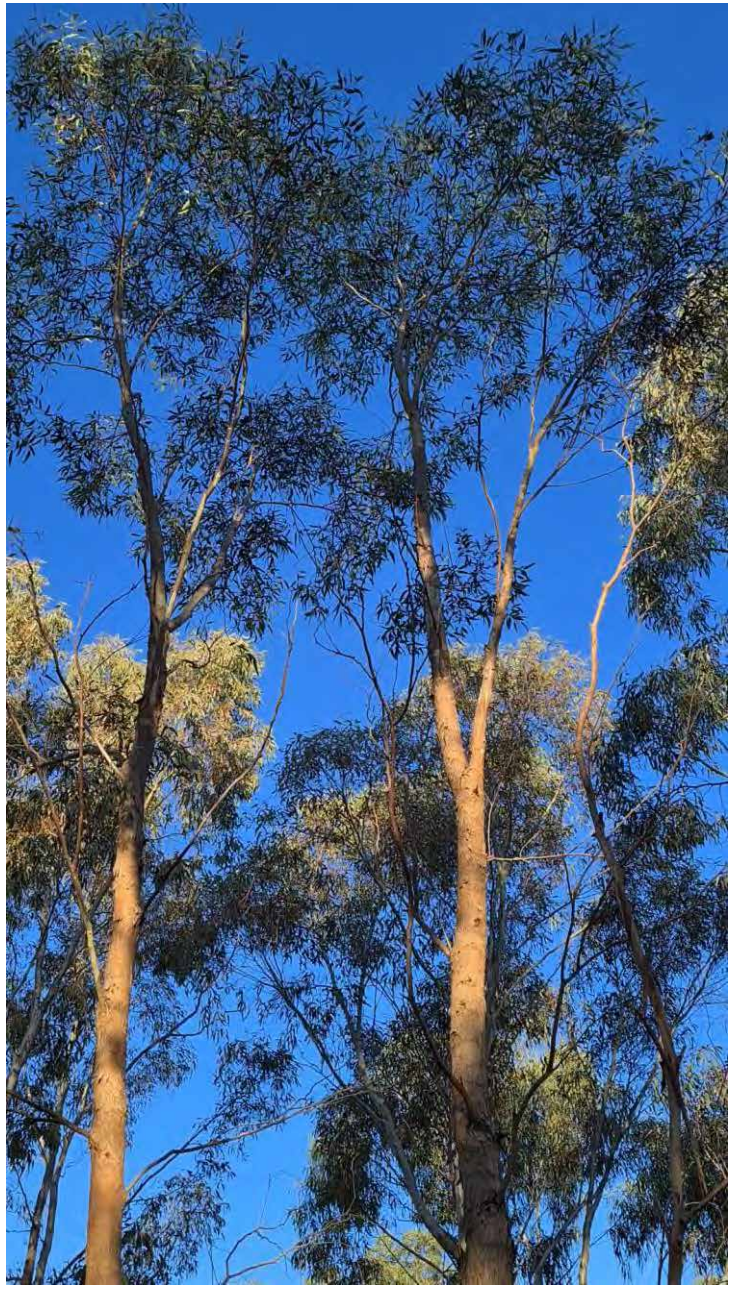
Upper canopy- the top vegetation layer

Sulphur crested Cockatoos sharing stone fruit!

and

Canopies of Eucalyptus melliodora

Stone fruit tree –upper canopy in Kitchen garden
Share some of your fruit-ditch the dangerous netting!



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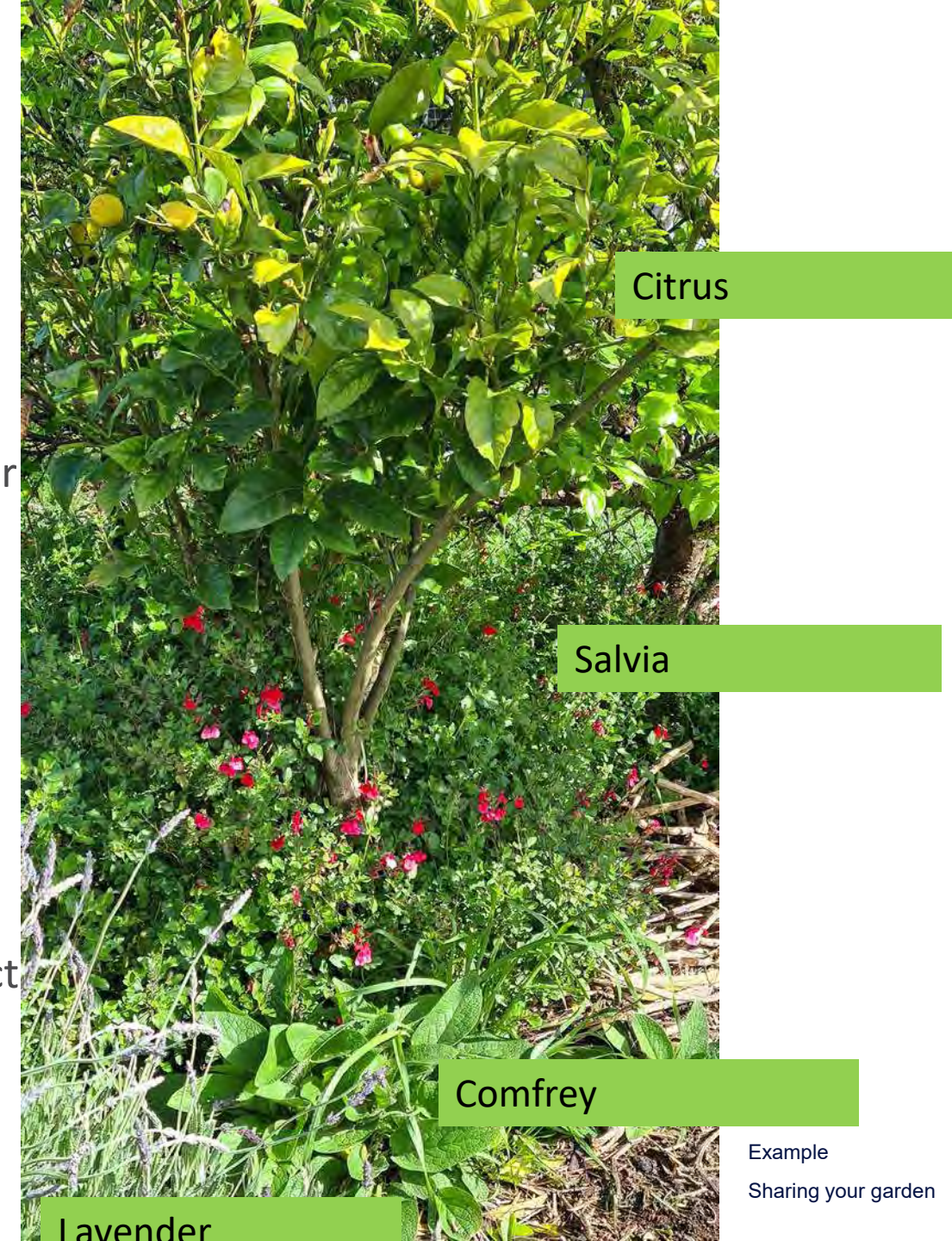
Looking at your garden for layers of planting

The photo illustrates an example of Layers in the garden-

- Understorey or ground layer -Comfrey
- Understorey or middle layer –Salvia and Lavender
- Upper storey-citrus

Herbs such as Salvia and Lavender will not compete for nutrients so Citrus will not suffer, and attracts pollinating insects, and small insectivorous and nectar eating birds

Comfrey has deep roots that pull up nutrients from the soil and large leaves that provide Frog and insect habitat as well as being invaluable as chook fodder and compost heap activators.



Example

Sharing your garden

Looking at the garden for layers of planting

The photo illustrates an example of layers in the garden-

- Understorey or ground layer –a mixture of perennial Billy Buttons and prostrate Eutaxia shrub
- Understorey or middle layer –Derwentia (a tall perennial) and Grevillea (medium shrub)-
- Upper storey-Bursaria-and young Eucalyptus-canopy

There is complexity within the three main layers which supplies different resources-different heights, form, flower types & flowering times-complementing by shading and protecting each other and self mulching

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Looking at your garden for layers of planting

The photo illustrates an example of layers in the garden-

- Understorey or ground-Dianella revoluta (Flax Lily) Agave sp
- Understorey or mid storey-Eremophilas (Emu Bushes) Shrubby Eucalyptus
- Upper storey/canopy-Sand Mallet (Mallee Gum)

As well as biotic components there is water and rocks for crevices and nooks and basking spots for skinks

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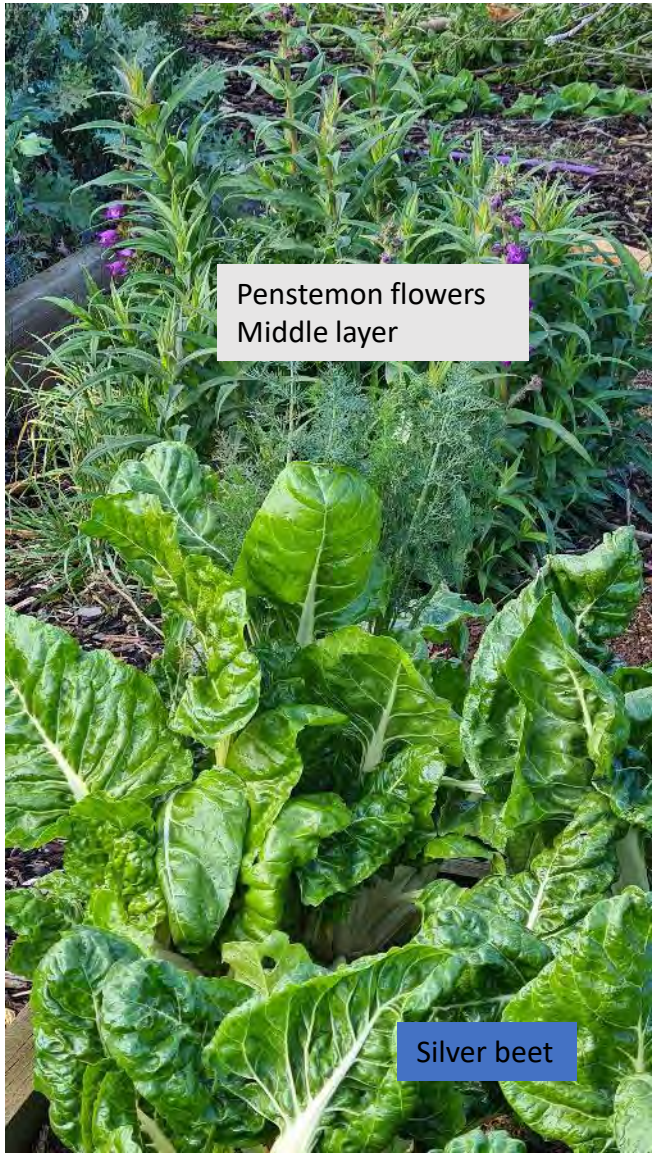
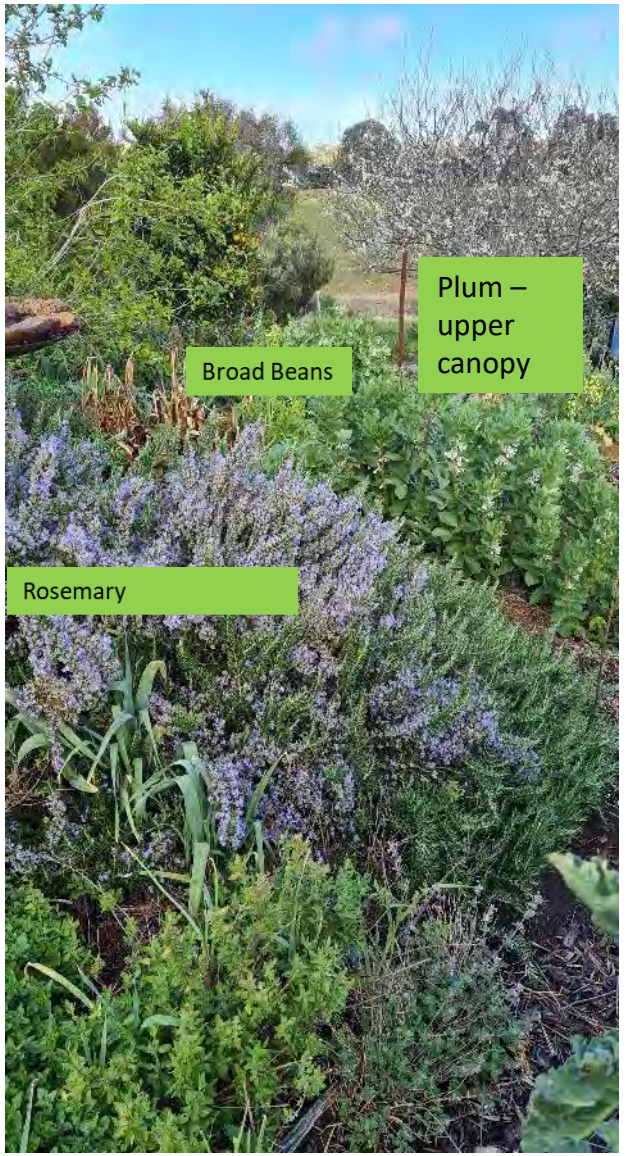
Food gardens as habitat

In the vegetable/food garden, the same vegetative layers can apply-but they will probably be more seasonal. Planting perennial flowers and herbs with edible crops creates microclimates, brings beneficial bugs, birds and creates diversity





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Introducing diversity into a front garden previously just lawn and some Silver Birch trees

Suburban garden conversion

A ‘borrowed’ tree on the street to provide canopy

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The wrong kind of layers…..

This photo shows a layered planting (formal) in a typical suburban setting

There is limited diversity here as the number of genus is limited-and there is really only two layers-the diversity of this area could be improved by ground cover plants as another layer-keeping with the formality if desired.

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So-how is this garden looking now?

This sort of layering is not for habitat

This is garden design layering for a three dimensional picture

Not for Wildlife!

Remember! The more vegetation layers there are, the more diversity will exist

Lomandra is the tall upper-storey layer, with groundcover Banksia and mid layer of Aeoniums. Habitat and lots of pleasing contrast and colour in foliage

Mallee Gums (Eucalyptus torquata) as upper canopy, with mid layers of Billy Buttons and dwarf Grevillea-lots of habitat and pleasing flowers, forms and

Upper layer of Eucalyptus Silver Princess, with mid storey layers of Snowy Mint Bush, silver emu bush, Lomandra, shrubby tea tree-pleasing contrasts in foliage colour and form,flowers-and great habitat!

Diversity in flowers-spotlight on specific genus-native shrubs

Grevilleas are a popular shrub and readily available-just make sure to choose prickly types with smaller flowers as these will provide a habitat for smaller birds

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Diversity in flowers-spotlight
on specific genus-Correa

Correas- commonly called Native Fuchsias- are readily available, come in a huge range of forms and colours and make great informal hedging

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Diversity in flowers- spotlight on specific genus-Hakea

Hakeas are in the same family as Banksias and are a very valuable addition for their prickly foliage, seeds (follicles) and flowers in any habitat garden

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Time to finish our walk….

A winding path slows everything down….time to enjoy your habitat garden

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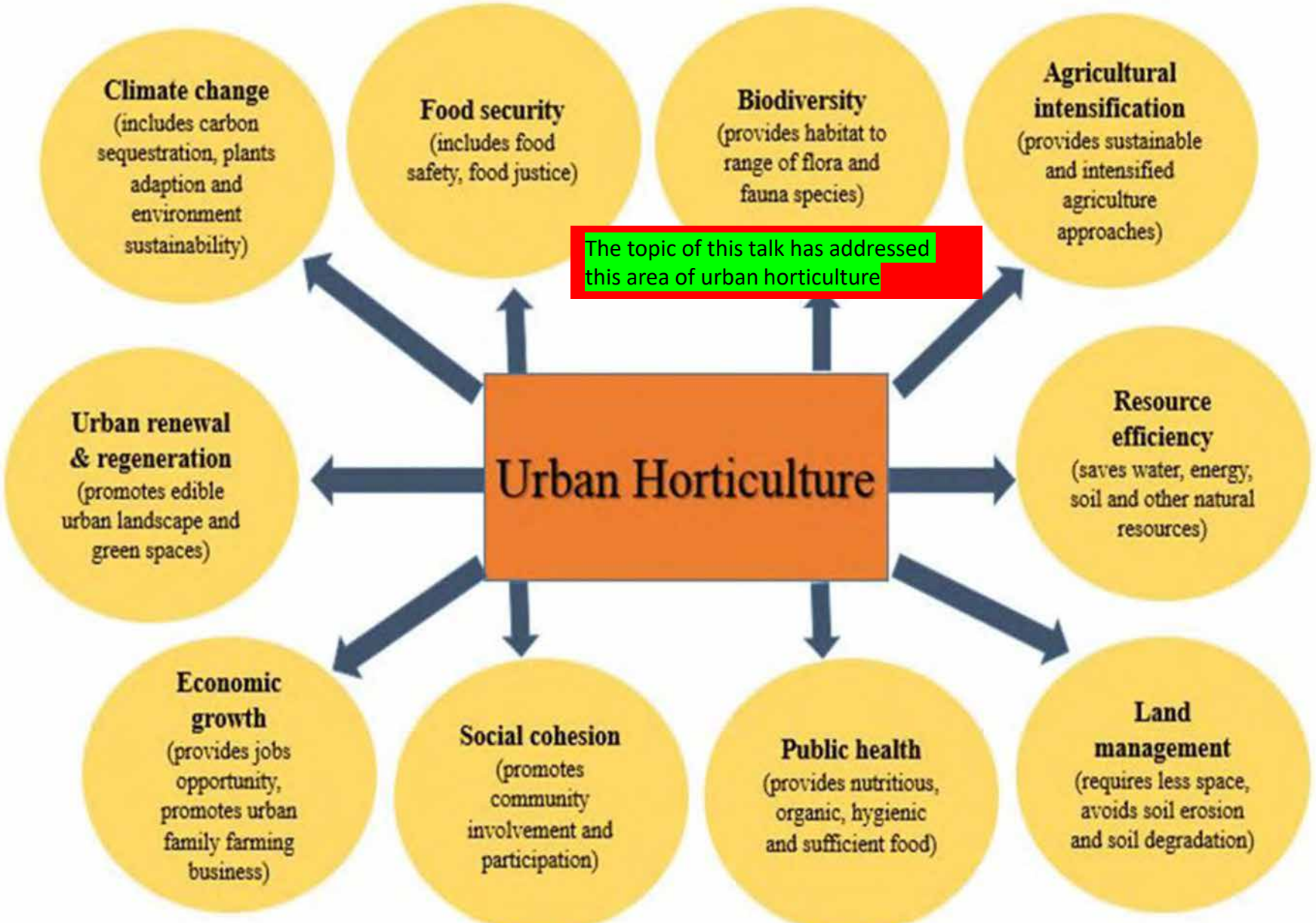
The general benefits of urban gardening-

Gardeners can make a difference- not only by creating habitat, but by many of the other benefits shown here.



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Some useful links and reading material

https://www.sgaonline.org.au/gardens-for-wildlife/

https://www.sgaonline.org.au/grow-a-garden-for-wildlife-excerpts-from-webinar/

https://www.abc.net.au/gardening/factsheets/gardens-for-wildlife/12346606

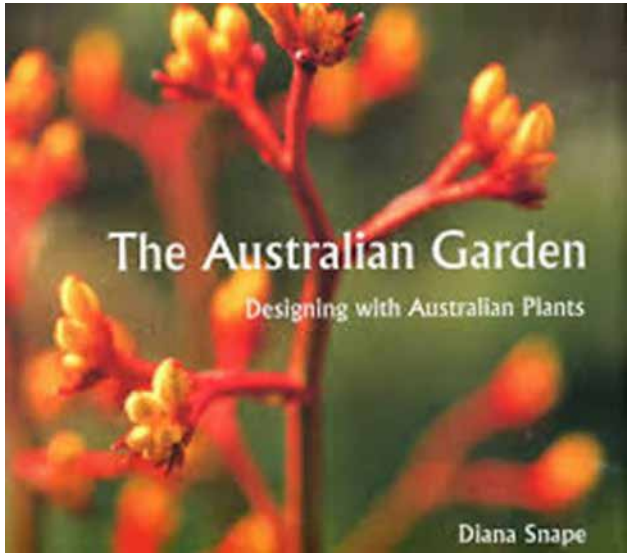
https://www.wires.org.au/wildlife-information/wildlife-friendly-gardens

https://gardensforwildlifevictoria.com/

Birdscaping Your Garden; George Adams (Lansdowne Press)

Garden pests, diseases and Good Bugs; Denis Crawford (HarperCollins)

The Nestbox Book; Gould League



Gardens ARE shared spaces'

I hope this has inspired you to think about your gardens in a different way!

Fill your garden with diversity- and they will come!

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Thank you and any questions?