

DIVERSITY IN THE HOME GARDEN

\$0.50

Let life do the work!

When planning your garden, it is important to include a wide range of plant types: you should have herbs, vegetables, fruits and flowers. Not only will this provide you with a variety of delicious things to eat and cook with (and look at and smell), but it will also encourage a range of beneficial creatures to take up residence in your garden. A healthy garden is a functioning ecosystem and will have all manner of creatures, including things that fly, crawl, hop, buzz, suck, chew and poo!

Pesticides (even so-called 'organic' ones) kill beneficial creatures as well as pests, so avoid using them whenever possible.

THE 'GOOD GUYS'

- Soil Makers: bacteria, fungi, nematodes, slaters, worms, millipedes, landhoppers...
- Pest Controllers: birds, lacewings, hoverflies, beetles, ladybugs, praying mantises...
- Pollinators: bbirds, honeybees, bumblebees, drone flies, butterflies...



Left - Right: Earthworms make soil all day; Ground beetles are a voracious predator of slugs; Lacewing larvae can't get enough aphids; Bumblebees work all day, every day!

SOIL MAKERS

By far the most numerous organisms making soil in your garden are bacteria, which you need a microscope to see. However slaters, worms, millipedes and landhoppers all process organic material into forms accessible by bacteria (and fungi). Some (like slaters) take chunky, woody stuff and turn it into food for other creatures (like worms). The worms process it into food for bacteria, which make nutrients available to plants and eventually die. By using a variety of mulch materials (like compost, straw, shredded tree prunings or grass clippings) and growing cover crops you will feed a variety of these 'soil creators'.

PEST CONTROLLERS

Typically a creature becomes a 'pest' when there is a lack of natural balance in the garden: numbers of the pest are able to build up unchecked and quickly become nuisances. Aphids are a good example of this: when there are a few around, there is a food supply for predators like young lacewings, hoverflies and ladybirds, but if there are no predators, the aphids are able to get out of control and start negatively affecting crops. Likewise, if there are no aphids at all, there is no food for their predators, so they won't stick around.

GETTING TO KNOW THE YOUNG ONES

Some of the most effective 'pest controllers' have very different life stages - the babies don't look like the adults! It's worth getting to know what they look like so you can work out who is helpful to have around. (pictures over the page).



POLLINATORS

Most of the food crops we grow rely on insects for pollination. This is true for fruiting plants like plums, apples and pears, strawberries, tomatoes and pumpkins, but carrots, radishes and onions also require pollination in order to produce seed. New Zealand also relies heavily on clover in our pasture-based farms - another plant requiring pollination! By including a variety of flower types in our gardens we will attract the creatures that will pollinate our food plants: if your garden is full of flowers, it will be full of honeybees, bumblebees, drone flies and butterflies - and much more!

GETTING TO KNOW THE YOUNG ONES: BABIES (TOP) AND ADULTS (BOTTOM)



Ladybug (predator of aphids and scale insects)



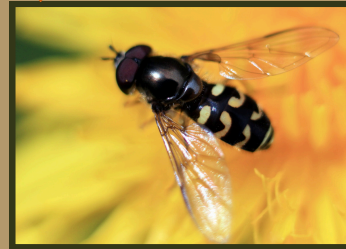
Lacewing (predator of aphids)



Syrphid Hoverfly (predator of aphids)



Parasitoid Wasp (predator of caterpillars)



HOW TO ATTRACT THE 'GOOD GUYS'

The secret to having the good guys visiting and staying in your garden is to provide plenty of food for adults and babies. While the babies typically will feast on pests like aphids, adults need nectar, so you need a good supply of flowers throughout the year. It's ideal to have as wide a range of flowering plants as possible, but there are some key plant families that helpful creatures just love, including Apiaceae (carrot family), Asteraceae (daisy family), Boraginaceae (borage family), Brassicaceae (cabbage family), Fabaceae (legumes - bean family). There are of course many other useful flowers out there - too many to mention here!

THE IMPORTANCE OF HABITAT

It's not just about food however - everything also needs a place to live! When we use mulches on our garden beds we provide a safe home for soil organisms and beetles and if we leave some parts of our garden to grow 'wild' - by leaving some of the lawn unmown, leaving some rotting branches lying around or just letting nature 'do it's thing' - we provide all these creatures a place to live.

Piles of leaves, unmown lawn and piles of rotting sticks all make great habitat for helpful creatures.



SOUTH COAST ENVIRONMENT SOCIETY