

Buzzing around your face, swarming about at your barbeque, crawling down your leg — bugs are everywhere! You'll find them in caves, up trees, in your compost heap and in the sky. Love them or fear them, we can't avoid insects.

From beetles to flies, ladybirds to wasps, insects of all shapes and sizes share our homes and gardens. In the next few pages, you'll meet some of the bugs that are common to most of backyard Australia.

#### BEETLES

#### CHRISTMAS BEETLE



Different species of this shiny beetle can be found throughout Australia. After spending most of the year underground as a grub, true to their name they emerge around Christmas time to eat the leaves of eucalyptus trees.

#### LADYBIRD BEETLE



Different species can be found throughout Australia. Also called ladybugs or ladybirds, these beetles are known as gardener's friends because they're predators of some insect pests such as aphids.

## DUNG BEETLE



Have you heard about the hard-working dung beetle? They collect and bury dung (poo). In doing so, they help reduce Australia's population of nuisance flies. They are not just doing this for us though. Before they bury dung they lay their eggs in it. When the juvenile beetles hatch, they begin life by feeding on the dung that surrounds them!

#### RHINOCEROS BEETLE



The rhinoceros beetle lives in rainforests and backyard compost heaps in the coastal tropics and subtropics of NT, Qld and NSW. Male beetles have large horns. They are attracted to lights at night, and can often be found around brightly lit areas around Christmas time when they become active.

#### **CLICK BEETLE**



Found across most of Australia, this vocal beetle sounds like an insect version of a computer game. On their undersides they have a stiff rod that acts like a spring. When the beetle is disturbed it arches its body and the movement releases the spring with a CLICK! The force can launch the beetle into the air and the sound may frighten potential predators.





#### CICADA



Different species of cicada can be found throughout Australia. Greengrocer cicadas are well-known to most people in south-eastern Australia. They are the loudest insects in the world — their songs can be heard up to 400 metres away on hot summer days and evenings.

#### **APHID**



Different species can be found throughout Australia although not all are native. We usually see them as pests on introduced plants such as lettuces and potatoes. In large numbers they can damage or weaken plants by sucking the fluids from them.

## GRASSHOPPER



Different species can be found throughout Australia. Grasshoppers can jump up to 40 times the length of their body! One well known type of grasshopper is the plague locust but not all grasshoppers are locusts.

## CRUSADER BUG



Found throughout Australia and Fiji this brown bug has yellow markings that look like a Christian cross. It has sucking mouthparts which it uses to extract sap from plants such as wattles and citrus trees.

#### ASSASSIN BUG



True to its name the assassin bug is a killer. Different species can be found throughout Australia, but all have the same way of feeding. Using their sucking mouthparts like a weapon, they puncture their victims (other insects), and drain out their body fluids!

## CRICKET



Different species occur throughout Australia. They are more visible in summer when their normal food (grass) dries out and they start searching for new food. Look out for them on warm nights around street lights or other bright lights. Males are responsible for the familiar cricket song. The sound they make is created by scratching one wing against the other.

#### **FLIES AND MOSQUITOS**

# HOVER FLY



Different species are widespread throughout Australia. Some hover flies have yellow markings on their body, but their most distinctive feature is their ability to hover just as their name suggests. Look out for the hover fly in warm weather when flowers are open.

#### **BLOW FLY**



throughout Australia. This most infamous fly causes strike in sheep and is actually an introduced pest. There are other species of noisy flies that we call blowflies including many native species. If you like to barbeque your dinner outside during summer you have probably noticed that blowflies are attracted to meat or meat being cooked.

## **BUSH FLY**



Found throughout Australia and occasionally in Tasmania the bush fly starts its life as a maggot in the dung of many native marsupials and introduced animals such as cattle (cows).

David McCle





# BACKYARD

#### FLIES AND MOSQUITOS

## MOSQUITO



Different species are widespread throughout Australia and Tasmania. Apart from the itching caused by mosquito bites, many species of mosquito in Australia are known to carry and transmit diseases such as Ross River Fever to humans. Only female mosquitoes suck blood; males eat sugary liquids such as nectar. They lay their eggs in water – even small containers such as pot plant holders are suitable habitat for some mosquitoes.

#### HOUSE FLY



Slightly larger than the bush fly and with four stripes on its back, the house fly is found across most parts of the world. Unlike the bush fly, they can breed in grass clippings and love to invade houses as their name suggests. Look out for the house fly from spring to autumn - in most houses it's hard not to notice them!

#### DRAGONFLY



Watch out for dragonflies and damselflies near streams, lakes or dams. Found throughout Australia, these brightly coloured, fast-flying insects can weave and duck through the air and capture their prey in mid-flight. Hundreds of millions of years ago, dragonflies grew up to half a metre long!

#### STICK INSECT



Different species of this slow moving insect occur throughout Australia. They rely on their remarkable camouflage that makes them look like sticks or leaves. Another unusual feature of some stick insects is their ability to shed and later regrow limbs if they are attacked.

#### BEES, WASPS AND ANTS

# HONEY BEE



Found throughout Australia, the honey bee was one of the first insects introduced to Australia. They have a very ordered society with kings, queens, workers and nurseries. Worker bees perform a 'dance' that tells the other bees how far, and in which direction, to fly to find the best flowers to collect pollen and nectar.

# EUROPEAN WASP



After being accidentally introduced to Australia the European wasp is now found across south-eastern Australia. A scavenger insect, you may notice them feeding on squashed insects on the front of parked cars. This pest has a powerful and very painful sting, and even though it looks a bit like a honey bee, it is able to sting more than once.

#### MEAT ANT



Different species can be found throughout Australia. The meat ant's location is made obvious by their distinctive mounds. They carefully maintain a covering of gravel size objects on the roof of their nests which can house thousands of ants. They are most active during winter and they will surge from a nest to combat intruders.

## **BULL ANT**



Found throughout Australia, the painful sting of the bull ant is something that you can't forget. These cunning ants which are unique to Australia often use an alternative exit from their nests so that they can attack intruders from behind. One of the world's largest ants – the Australian bulldog ant is more than 3cm long!





# **BUTTERFLIES AND MOTHS**

#### **BOGONG MOTH**



Bogong moths migrate from the low grassy plains in spring to the Australian Alps in southern NSW and Victoria where they spend the summer in rock crevices. Indigenous Australians feasted on the highly nutritious moths during their summer spell in the mountains. They roasted them in hot ashes and mashed the bodies to make 'moth meat'.

#### ORCHARD BUTTERFLY



Found in eastern Australia and Alice Springs. These large, graceful flyers love to feed on citrus plants but they are also attracted to flowers, including many grown in suburban gardens. Young caterpillars protect themselves through camouflage – they look like fresh bird droppings!

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## **EMPEROR GUM MOTH**



Found in eastern Australia and the Northern Territory. Emperor gum moths have large 'eyespots' on each of their four wings which are designed to fool predators into thinking that a larger animal is looking at them.

# CABBAGE WHITE BUTTERFLY



It is thought that Cabbage white butterflies arrived in Australia in the 1930's. They have done so well that they are now found in areas with mild climates across Australia. The caterpillars are pests for cabbage, broccoli and sprout growers.

# COCKROACHES

#### AMERICAN COCKROACH



The American cockroach has adapted well to Australia, becoming the most common pest cockroach. Cockroaches normally live in the bush but they have become very used to urban environments and they love toilets and sewers. They will eat just about anything, including the fingernails of sleeping humans!

## **BUSH COCKROACH**



In Australia there are about 400 native species of cockroach and none are pests. They live almost everywhere except in our houses including the bush, grasslands, forests and woodlands. They eat pollen, bark and leaf material. They are an important part of the food web in many natural habitats, being eaten by many animals such as frogs and reptiles. To keep away predators, the bush cockroach produces a bad smell.

# SIRC



# WHAT DOES THAT MEAN?

## INDIGENOUS:

native to a land or region

#### CATERPILLAR

the larva of a butterfly or moth.

#### MANTIDS

#### PRAYING MANTID



Different species of this predatory insect occur throughout Australia. Their large eyes and triangular shaped heads give them a good view of possible next meals - usually other insects but sometimes lizards and frogs. They rely on camouflage and their ability to stay very still to catch prey. They sometimes eat members of their own species and females are known to bite off the head of the male after (or during) mating!

# WANT MORE?

→ Visit www.csiro.au/helix and follow the links to the Backyard Biodiversity pages to read articles about bugs that have appeared in Scientriffic and The Helix. You will also find loads of bug related activities.

