# QUICK DENTIFICATION OF COMMON LOCAL NSECTS

# CENTRAL VICTORIA & THE HIGHLANDS

# QUICK IDENTIFICATION OF COMMON LOCAL INSECTS

### A simple educational guide

A continuously growing database of some of the insects in the central Victorian bushland and Highland areas. The book is based almost entirely on images taken by people with local links or visitors to our district. In some instances we have used public domain images, though we aim to replace these with local images as contributions allow.

### By David & Debbie Hibbert

Species count:

63

and growing

Special thanks to Geoff Boyes, Denis Martin, Kathie Maynes, Kelly Petersen, Robert (Bob) Tate and Ron Turner.

Contributing photographers:

Bob Tate, Jamie Flynn, Denis Martin, Kathie Maynes, John Norbury, Shez Tedford, Ron Turner, Joan Walsh, Joshua Hibbert, Steven Hibbert, Debbie Hibbert, David Hibbert.

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### CICADAS

### BEETLES, BUGS, APHIDS, WEEVILS

### FLIES

**BEES & WASPS** 

### BUTTERFLIES

### MOTHS

### DRAGONFLIES / DAMSELFLIES

### **GRASSHOPPERS & CRICKETS**

### OTHER

### GLOSSARY





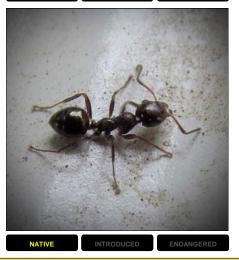












#### Black ant

Also known as the black house ant, it is a worker ant found in all states of Australia. It grows



to 3 mm and is an omnivorous ant that will often feed on sweet foods as well as worms, insects, spiders and vegetation. It will nest around homes, making it a common pest. The queen black ant lays oval eggs.

Family: Formicidae Genus: Ochetellus Species: O. glaber

#### **Bulldog ant**

Found in all states of Australia, it grows to 30 mm and is an aggressive hunter that feeds on



other ants, spiders, bees and other insects. It has a stinger at the end of its abdomen and its venom is amongst the most toxic in the insect world, even causing anaphylactic shock in humans and in rare cases death.

Formicidae Family: Genus: Species:

### Myrmeciinae Myrmecia

#### **Coptos termite**

Also referred to as a whiteant, they are a native subterranean wood eating termite found in all



states of Australia. They build a nest hidden from site, and along with Schedorhintermes intermedius, they are considered the most destructive termite to structures. They grow to 7 mm and prefer damper soils and no exposure to light.

Rhinotermitidae Family: Coptotermes Genus: Species: C. acinaciformis

#### Spiny ant

There are over 100 species of Spiny Ants in Australia with most being black. It is a worker



ant found in all states of Australia. It grows to 4 mm and is an omnivorous ant that will often feed on sweet foods as well as worms, insects, spiders and vegetation. It will nest around homes, making it a common pest.

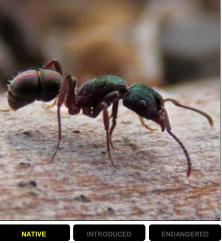
Family:	Formicidae
Genus:	Polyrhachis
Species:	australis











#### Giant red bullant

Also known as the giant bull Ant or Hoppy Joe, it is found in Eastern Australia. It grows to



30 mm and is an aggressive hunter that feeds on other ants, spiders, bees and other insects. It delivers an extremely painful bite.

Family: Genus: Species: Formicidae Myrmecia M. gulosa

#### Golden-tailed spiny ant

A black and golden ant found in Eastern Australia from Queensland to South Australia.



It grows to 9 mm and is an omnivore that feeds on sweet foods as well as small insects, spiders and other vegetation. It prefers eucalypt woodlands, bushland and urban areas. It has tiny spines on its hump-back.

Formicidae Family: Polyrhachis Genus: P. ammon Species:

### Golden-tailed sugar ant



Also known as the golden black sugar Ant, it is found in Eastern Australia from Queensland to

Victoria. It grows to 10 mm and is omnivorous, feeding on pollen, nectar, honeydew and plant parts as well as small insects. It prefers woodlands, bushland and forests and will hide in its nest during wet or hot periods.

Family: Formicidae Genus: Camponotus Species: C. aeneopilosus

#### Green-head ant

Also known as the green ant and metallic pony ant, it is found in all states of Australia



(except Tasmania). It grows to 7 mm and is a diumal omnivorous ant which feeds on sweet foods and insects such as baby moths. It prefers woodlands and bushland and colours can include purple and violet. Its painful bite can cause anaphylactic shock.

Family: Formicidae Genus: Rhytidoponera R. metallica



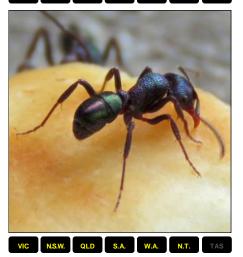
Species:







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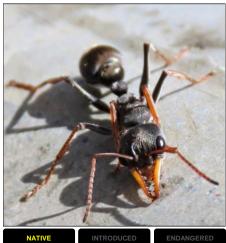






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NATIVE



#### Jack jumper ant

A bull ant also known as a jumping jack, it is found in all states of Australia. It grow to



12 mm and feeds on small animals and insects. Their sting is one of the most powerful in the insect world and is capable of inducing anaphylactic shock. It can jump horizontally many times its body length and jump metres from trees to the ground.

Formicidae Family: Genus: Myrmecia Species: M. pilosula

#### Meat ant

Also known as the gravel ant, it is found in all states of Australia. It grows to 12 mm



(workers & males to 7 mm) and is an omnivore that often feeds on food received from other insects it tends, including some butterflies. It prefers woodlands, bushland, open country and urban areas. It will give a painful bite if threatened.

Formicidae Family: Genus: Iridomyrmex Species: L. purpureus

#### **Red-headed spider ant**

A native and found in eastern Australia from Queensland to South Australia and Tasmania.



It grows to 20 mm feed on sweet foods as well as insects, spiders and other vegetation. It prefers woodlands, bushland with a higher rainfall and can be found in urban areas. Their spider-like look deters predators.

Family: Formicidae Genus: Leptomyrmex Species: L. erythrocephalus

#### Sugar ant

Also known as the banded sugar ant, it is found in all states of Australia. It grows to

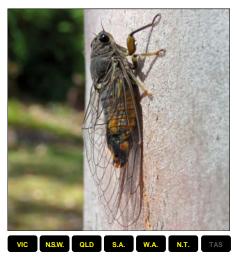


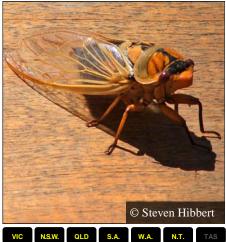
15 mm and is an omnivorous ant that will often feed on sweet foods as well as insects, spiders and other vegetation. It prefers woodlands, bushland and urban areas. It will give a painful bite if threatened.

Family:	Formicidae
Genus:	Camponotus
Species:	C. consobrinus



## **CICADAS**



















#### **Cicada (Black firetail)**

There are over 220 species of Cicada in Australia. It grows to 35 mm and feeds on sap. It



prefers most habitats where ample food is found. Cicada nymphs live underground near trees to a depth of 10 cm - 30 cm. They leave an empty hole up to 20 mm wide when they dig to the surface and fly to a nearby tree.

Order: Hemiptera Family: Cicadidae Species: *C. denisoni* 

### Cicada (Golden drummer)

There are over 220 species of Cicada in Australia. It grows to 50 mm and feeds on sap. It



prefers most habitats where ample food is found. Cicada nymphs live underground near trees to a depth of 10 cm–30 cm. They leave an empty hole up to 20 mm wide when they dig to the surface and fly to a nearby tree.

Order: Hemiptera Family: Cicadidae Species: *T. colorata* 

#### Cicada (Green grocer)

There are over 220 species of Cicada in Australia. It grows to 50 mm and feeds on sap. It



prefers most habitats where ample food is found. Cicada nymphs live underground near trees, leaving a hole up to 20 mm wide when they leave. The male Green Grocer is known as one of the loudest insects in the world.

Order: Hemiptera Family: Cicadidae Species: *C. australasiae* 

#### Cicada (redeye)

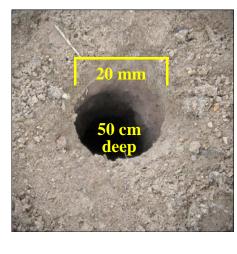
There are over 220 species of Cicada in Australia. It grows to 50 mm and feeds on tree sap. It



prefers most habitats where ample food is found. They feed primarily on eucalyptus trees, though will feed on Angophora trees if eucalypts are in short supply. Populations vary widely from year to year, with some years there being almost none.

Order:	Hemiptera
Family:	Cicadidae
Species:	P. moerens

# **CICADA**

















### THE CICADA LIFECYCLE



Adult cicadas lay their eggs on trees. These eggs then hatch, releasing tiny cicada nymphs into the world. The small nymphs then fall from the tree to the ground below the tree. Once on the ground they slowly burrow themselves into the soil to a depth ranging from 10 cm - 50 cm - depending on the species and hardness of the soil. Once in the ground, the cicadas grow to full size. It then digs out using its exoskeleton as protection and digging strength, which it sheds once it leaves the ground.

Once they are fully developed, they will dig to the surface using their strong front legs. The then fly from the hole to a nearby tree. They leave a large hole ranging from 10 - 20 mm in diameter. Once landed on a nearby tree, they shed their skin (exoskeleton).

Cicadas can live underground for up to seven years. Some summers are almost cicada free, while others will have a constant drone of the male's cicada call. It is not clear what determines the cycle.

Cicadas have five eyes. Two very large eyes that protrude out from the side of their head and three small jewel like eyes located between their two main eyes. These eyes are commonly known as 'ocelli' (meaning small eyes in Latin) and are less sensitive compared to their larger compound eyes. It may be that these eyes help them to detect predators (such as birds) above tehm.

Around the cicadas head are tiny sensitive hairs that help the cicada to move around objects.

### BUGS vs BEETLES

### Main differences between bugs and beetles

Bugs belongs to the order <u>Hemiptera</u> Beetle belongs to the order <u>Coleoptera</u>

**Bugs** have mouthparts that are modified into a rigid piercing stylet

Beetles have mouthparts that are designed for chewing

Bugs often have wings that are partially hardened into wing-casings.

**Beetles** have forewings that are called an elytra and are hard or leathery. Hindwings fold under elytra when not flying.

**Bugs** generally have a liquid diet sourced from plant sap and nectar, however some bug species feed on animal fluids.

Beetles eat food from a broad range of plants and animals

**Bugs** have an incomplete metamorphosis and juveniles usually look like tiny wingless versions of the adults.

**Beetles** have a more complete metamorphosis and larvae usually have a hard head complete with discernible chewing mouthparts.

















#### Acacia leaf beetle

One of over 45 species of native leaf beetle in the genus *Chrysomelinae* found in all



states of Australia. It grows to 9 mm long, has a cylindrical shaped orange body with an iridescent dimpled back. It feeds on acacia trees such as silver wattle. Their larvae are globose (sphere shaped).

Family:ChrysomelidaeGenus:ChrysomelinaeSpecies:Chrysomela curtisi

#### **Click beetle**

Found in large numbers in all states of Australia. They grow to 18 mm and feed on nectar,



pollen, plants and small soft bodied insects such as aphids and spiders. They have a distinctive click generating mechanism which is used to deter predators as well as helping them to right themselves. Larvae are known as wireworms.

Family: Elateridae Genus: Unknown Species: Unknown

#### Diving beetle

A member of a Hemiptera Order, it is found in all States of Australia and grow to 35 mm. It



has dark glossy colours and dives to feed using its back legs. It prefers small insects, crustaceans, worms, tadpoles and tin fish. It can dive to over a metre and stay submerged for long periods, by breathing from a bubble it holds under its wings.

Family:DytiscidaeGenus:OnychohydrusSpecies:Onychohydrus scutellaris

#### Elm-leaf beetle

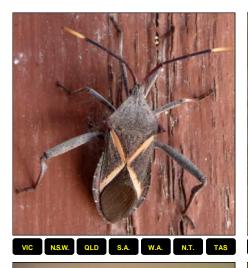
Found in south eastern Australia from New South Wales to South Australia and



Tasmania. It grows to 8 mm and feeds on the leaves of elm trees, an introduced species. It is considered a pest.

Family: Chrysomelidae Genus: Xanthogaleruca Species: Xanthogaleruca luteola

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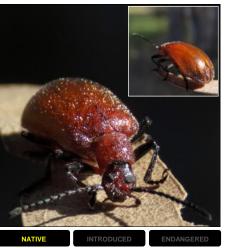












#### **Eucalyptus tip-wilter**

A member of the Coreidae family. They are found in south eastern Australia from



Queensland to South Australia. They grow to 23 mm and prefer bushland and woodlands. It feeds on sap which it extracts from young leaves and shoots. It lay their eggs in regular patterns on eucalypt leaves.

Family:CoreidaeGenus:AmorbusSpecies:A. alternatus

#### Feather-horned beetle

One of six species of the rhipiceridae family that is native to Australia and found in all



states of Australia. They grow to 25 mm and prefer bushland and woodlands and drier forests. Males have a black body, are covered in white dots and have large feathered antennae. Little study has been conducted on this uncommon species.

Family: Rhipiceridae Genus: *Rhipicera* Species: *Rhipicera femorata* 

#### **Fungus-eating ladybird**

Also known as the Ladybug, and is found throughout Australia. There are over 5,000



species of the Coccinellidae. The pictured featured species grows to 10 mm and feeds on smaller insects, including aphids, though will also feed on pollen, sap and nectar. It is found throughout Australia.

Family: Coccinellidae Genus: *Illeis* Species: *Illeis galbula* 

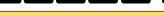
#### Honeybrown beetle

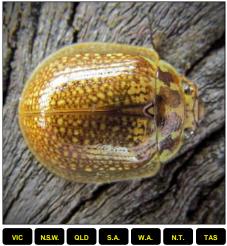
Also known as the dead-leaf skeletonising beetle, it is one of over 20,000 known darkling



beetles. It is found in eastern Australia from Queensland to Victoria. It prefers eucalypt leaves and grass in bushland, woodlands and drier forests and has tiny hairs all over its body.

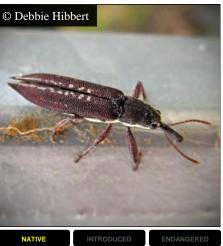
Family: Tenebrionidae Genus: *Ecnolagria* Species: *Ecnolagria grandis* 











### Leaf beetle

Also known as the Tortoise Beetle and variegated eucalyptus leaf beetle, it is



found throughout Australia. They grow to 5 mm and generally feed on eucalyptus or acacia leaves. Their bright colours, small shape and hemispherical shape cause them to often be confused with ladybeetles. Their underside and legs are usually black.

Order: Coleoptera Genus: Paropsisterna Species: Paropsisterna variicollis

#### Long nosed weevbil

Found in eastern Australia from Queensland to South Australia. It grows to 27 mm and feeds on fruit, grains and vegetation. It prefers bushlands, woodlands and forests.



Family: Belidae Genus: Rhinotia

Rhinotia hemistictus

### Mint leaf beetle

Species:

Also known as the Mint Beetle, it grows to 9 mm and is found in all states of Australia. Male



beetles are green though the female can range from green to purplish-grey. This specimen was found at Marysville, in Victoria, Australia. it is often confused with the rarer Tansy beetle.

Family: Chrysomelidae Chrysolina Genus: Chrysolina herbacea Species:

#### **Net-winged beetle**

Known as Net-winged Beetle, it is found across Australia. It typically grows to 15 mm and



feeds on nectar and honeydew (a sweet, sticky substance excreted by aphids and often deposited on leaves and stems). It prefers woodlands, though will be found in parks and gardens

Order:	Coleoptera
Family:	Lycidae
Species:	Lycidae Porrostoma



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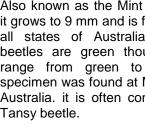


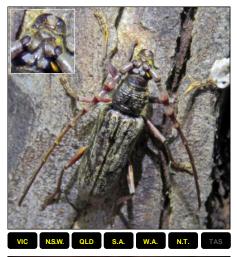




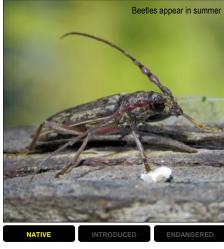
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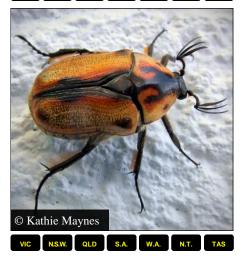








N.S.W. QLC







#### Pachydissus sericus

A species of longicorn beetle, found in all states of Australia (except Tasmania). They grow



to 27 mm long and prefer woodlands, bushland and dry sclerophyll forests. The larvae bore holes in trees, pupating, before emerging as adults through holes. They then lay eggs in cracks in the bark. They are one of the most destructive of all tree insects.

Cerambycidae Family: Genus: Pachydissus Species: Pachydissus sericus

#### Plague soldier beetle

Also known as the Green Soldier Beetle. It is found in all states of ENCYCLOPEDIA Australia. It grows to 15 mm and

feeds on plant leafs and flowers as well as other small insects.

Family: Cantharidae Genus: Chauliognathus Species: C. lugubris

#### **Roveshaped beetle**

Found in all states of Australia, it is a large diverse family known for having short wing



covers (elytra) and over half of their abdominal segments exposed. The family is recognised as the largest extant group of organisms in the world. This sample was found in Central Victoria and grows to 25 mm.

Family: Staphylinidae Genus: Thyreocephalus Unknown Species:

#### Scarab beetle

There are over 30,000 species of Scarab beetle. It is generally a stout bug growing from 1.5-30

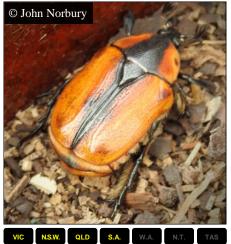


mm. It is found across Australia. Some species feed on decaying plant material, dung and carrion. They have distinctive clubbed antenna comprised of plates called lamella.

Family: Genus: Species:

Scarabaeidae Chondropyga Unknown









#### Scarab beetle

Also known as the Cowboy Beetle, it is a stout bug growing from 1.5-30 mm. It is found in



south-eastern Australia from Queensland to South Australia. It feeds on decaying plant material, dung and carrion. They have distinctive claws that are strong and enable them to hold on very tight.

Scarabaeidae Family: Genus: Chondropyga Species: Chondropyga dorsalis

#### Scarab beetle

Also known as the Christmas Beetle, it is a stout bug growing from 1.5-30 mm. It is found



across Australia. Some species feed on decaying plant material, dung and carrion. They have distinctive claws that are strong and enable them to hold on very tight.

Family: Scarabaeidae Anoplognathus Genus: Species: Anoplognathus viriditarsis

#### Scarab beetle

Also known as the Christmas Beetle, it is a stout bug growing from 1.5-30 mm. It is found



across Australia. Some species feed on decaying plant material, dung and carrion. They have distinctive claws that are strong and enable them to hold on very tight.

Scarabaeidae Unknown

#### Spiny leaf beetle

A member of the family Chrvsomelidae with over 35,000 species worldwide



making them one of the most common beetles. They are found in all states of Australia (except WA and the NT) and grow to 7 mm. They are named multispinosus because of the multiple spines.

Family:	Chrysomelidae
Genus:	Hispellinus
Species:	Hispellinus multispinosus





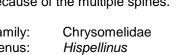






Family: Genus: Species:

Anoplognathus









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#### Spotted amber ladybird

Also known as the adonis ladybird and the variegated ladybird, it is an introduced



species now found in all states of Australia. There are over 5,000 species of the Coccinellidae. It grows to 10 mm and feeds on smaller insects, including aphids, though will also feed on pollen, sap and nectar.

Family:CoccinellidaeGenus:HippodamiaSpecies:Hippodamia variegata

#### **Spotted ladybird**

Also known as the large spotted ladybird and the common spotted ladybird, it is found in



all states of Australia. There are over 5,000 species of the Coccinellidae. It grows to 10 mm and feeds on smaller insects, including aphids, though will also feed on pollen, sap and nectar. It is found throughout Australia.

Family:CoccinellidaeGenus:HarmoniaSpecies:Harmonia conformis

#### **Tricolor soldier beetle**

A species of Soldier Beetle with a slightly flattened head, in the family Cantharidae. It is found



in eastern Australia from Queensland to South Australia and Tasmania. It grows to 10 mm and feeds on leafs and flowers as well as other small insects. It displays three colours; orange, yellow-orange abdomen and a metallic olive-green elytra (forewing).

Family:CantharidaeGenus:ChauliognathusSpecies:Chauliognathus tricolor

#### Tumbling flower beetle

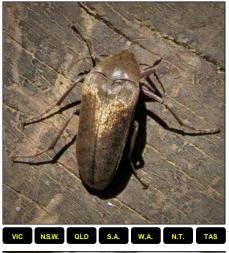
Also known as the pin tail beetle, it is a small native beetle found in south eastern Australia



from QLD to SA and Tasmania. It grows to 6 mm and feeds on nectar of flowering plants such as native bursaria spinosa. It has a pinlike tail and when threatened, drops in a tumbling motion from its flower. There are over 40 species in the genus.

Family:MordellidaeGenus:HoshihananomiaSpecies:Hoshihananomia leucosticta

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#### Wedge-shaped beetle

Members of the Coleoptera Order which includes over 450 species. They are found in all



states of Australia and grow to 10 mm. They are parasitical, attaching themselves to wasps or bees, are taken to nests where they then seek a young larva, imbed itself in the abdomen of the host and slowly consumes it.

Order: Coleoptera Family: Ripiphoridae Species: T. schaefferi

#### Whirligig beetle (Aquatic)

An aquatic water beetle that is a member of the genus Macrogyrus with over 700



species worldwide. They are found in all states of Australia and grow to 12 mm. They are named after their rapid circular (whirligig) pattern of swimming when threatened. It is believed that their divided eyes can see above and below water at the same time.

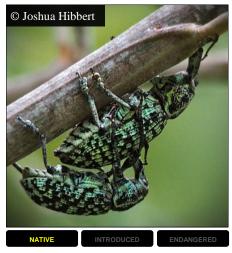
Gyrinidae Family: Genus: Macrogyrus Species:

Macrogyrus oblongus

### **BEETLES - WEEVILS**









#### Botany Bay weevil

Found in eastern Australia from Queensland to South Australia. It grows to 25 mm and feeds on



fruit, grains and vegetation. It prefers bushlands, woodlands and forests. It was discovered by Captain James Cook and significantly it was the first insect from Australia ever to be described.

Order: Curculionidae Family: Chrysolopus Species: Chrysolopus spectabilis

#### Gum tree weevil

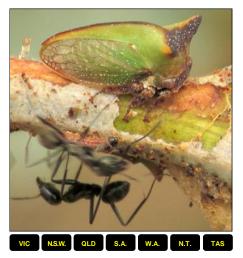
Also known as the Eucalyptus snout beetle, it is endemic to sAustralia and is found in all

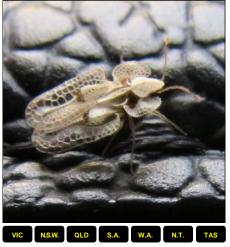


states of Australia. It grows to 13 mm and the yellow-green larvae feeds on the young shoots and leaves of various eucalyptus trees. It prefers eucalypt bushlands, woodlands and forests.

Order: Family: Species:

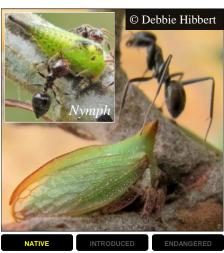
Coleoptera Curculionidae Curculionidae scutellatus

















#### Acacia horned treehopper

A bug of the Hemiptera Order which includes over 3,000 species of treehopper. They are



found in eastern Australia from Queensland to South Australia and grow to 7 mm. They feed on sap and prefer wattle trees. They often live in a symbiotic relationship with ants who feed on honeydew they secrete.

Hemiptera Order: Family: Membracidae Species: Sextius viresens

#### Azalea lace bug

A tiny bug native to Japan and now in many countries around the world. They are found in all



states of Australia with over 80 species described in the genus worldwide. It grows to a length of just 3 mm, has lace-like forewings and feeds on the underside of some leaves where it also lays its miniscule eggs which are almost invisible to the naked eye.

Order: Hemiptera Genus: Stephanitis Species: S. pyrioides

#### Coried bug

Also known as the Squash Bug and clown bug, there are over 2,800 species of the Coreid



Bug. This featured species grows to 15 mm and feeds on juices and soft tissues from plant roots as well as, crops such as peas, potatoes and tomatoes. Hundreds can be found around lights at night in springs.

Family: Coreidae Coreus Genus: Unknown Species:

#### **Eucalyptus tip-wilter**

A member of the Coreidae family. They are found in south eastern Australia from



Queensland to South Australia. It grows to 23 mm and prefer bushland and woodlands. It feeds on sap which it extracts from young leaves and shoots. It lay their eggs in regular patterns on eucalypt leaves.

Family:	Coreidae
Genus:	Amorbus
Species:	Amorbus alternatus

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#### Froghopper

Also known as spittlebugs, its a member of a Hemiptera Order which includes Stink Bugs and



Shield Bugs. They are found across Australia. and grow to 4 mm. They pierce plant parts and feed on their sap. They produce sticky bubbles on stems to protect them from predators such as birds and other insects.

Hemiptera Order: Family: Aphrophoridae Aphrophoridae Parva Species:

#### Green vegetable bug

Also known as the southern green stink bug and the green vegetable bug. It grows to



15 mm and feeds on juices and soft tissues from plant roots as well as, crops such as peas, potatoes and tomatoes. It is found throughout Australia.

Pentatomidae Family: Genus: Nezara Nezara viridula Species:

#### Greenhouse whitefly

One of around twenty species of whitefly found in all states of Australia. It resembles a fly and



moth, but is actually related to aphids. It grows to 2 mm and prefers parks and gardens. It feeds on plants and are attracted to some species of fuchsia's. They are considered a pest as they damage their host.

Aleyrodidae Family: Genus: Trialeurodes Species: Trialeurodes vaporariorum

#### Horehound bug

A tiny sap-sucking stink bug found in all states of Australia (except the NT). They grow to

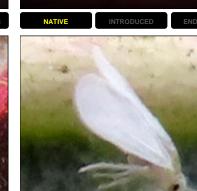


12 mm and prefer horehound weed in bushland and woodlands. They feed on the sap of plants by using their piercing mouthparts to burrow into soft juvenile stems. They can swarm on fruit tree blossoms, though usually cause little harm to the plant.

Family: Pentatomidae Genus: Agonoscelis Species:

PAGE

Agonoscelis rutila









#### Long-nosed lantern fly

A planthopper of the Order Hemiptera. Planthopper are found in all states of Australia



and across much of the world. They grow to 12 mm and feed by piercing plants limbs and feeding on their sap. They are found in most habitats across Australia. This specific species shown here is not currently known.

Order: Hemiptera Family: Unknown Species: Unknown

#### Milkweed

Family:

Genus:

Species:

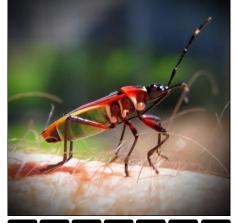
A medium sized bug, it grows to 16 mm and is found across Australia. It feeds on the seeds and tissue of the Milkweed Plant. This specimen was found in Jamieson.

Lygaeidae

Oncopeltus

Oncopeltus fasciatus











 NIME
 INTRODUCE

#### Orange assassin bug

A large sized orange and black bug native to Australia. It grows to 11 mm and is found in all



states of Australia (except the NT). It prefers bushland, woodlands and warmer forests. It feeds on the soft insides of other insects by sicking out soft insides after injecting a toxin that liquefies their inners.

Family: Reduviidae Genus: *Gminatus* Species: *Gminatus australis* 

#### Psyllid

A tiny insect found in all states of Australia where Red Gum trees are found (New South

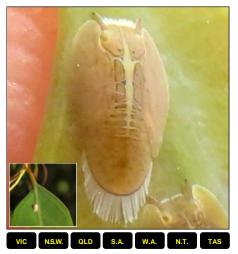


Wales, Victoria and South Australia). They grow to 6 mm and feed of the sap of Red Gum leaves and soft stems. They build a cover called a lerp from honeydew to protect themselves. Lerps cap be up to 15 mm wide and many birds will eat the lerp and psyllid.

Family: Aphalaridae Genus: *Glycaspis* Species: *Unknown* 



RED





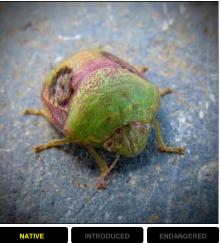












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#### Psyllid

A psyllid bug similar to the Asian citrus psyllid. It is found throughout Australia, but unlike



the citrus psyllid which feeds on citrus trees, this species drawn sap from young river red gum leaves. It grows to 3 mm and prefers areas where river red gums grow. This species does not build lerps (small protective domes built from honeydew).

Liviidae Family: Genus: Diaphorina Species: Unknown

#### Red gum lerp psyllid

A tiny insect found in all states of Australia where Red Gum trees are found (New South



Wales, Victoria and South Australia). They grow to 5 mm and feed off the sap of Red Gum leaves and soft stems. They build a cover called a lerp from honeydew to protect themselves. Lerps cap be up to 15 mm wide and many birds will eat the lerp and psyllid.

Aphalaridae Family: Genus: Glycaspis Species: Glycaspis brimblecombei

#### Red-banded seed eating bug

Member of the order Hemiptera, with between 50,000 and 80,000 species. It



found in all States of Australia (except Northern Territory and Tasmania) and grows to 7 mm and feed on the seed of plants including some crops such as mung bean, cowpeas and soy beans.

Order: Hemiptera Family: Lvgaeidae Species: Melanerythrus mactans

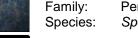
#### Stink bug

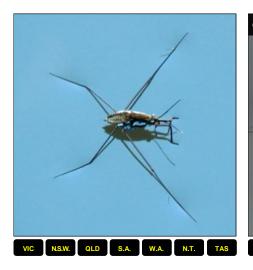
Members of a Hemiptera Order which includes species known as the Stink Bugs and Shield



Bugs. They are found across Australia. and typically grow to 13 mm, though some species grow to 20 mm. They feed on fruit, crops such as corn and stems and leaves of some plants.

Order:	Hemiptera
Family:	Pentatomidae
Species:	Spermatodes







#### Water strider

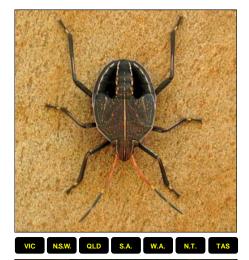
Water Striders are an aquatic bug found in all states of Australia and grow to a body



length of 20 mm (body 10 mm). It has tiny hairs that trap air to help it float and not break the water's natural surface tension. They feed on mosquito larvae and other tiny insects that live or have died on the water's surface. They initially carry their young on their back.

Order: Hemiptera Family: Gerridae Species: *G. Gerrinae* 

### **BUGS - SHEILD BUGS**





VIC N.S.W. QLD S.A. W.A. N.T. TAS

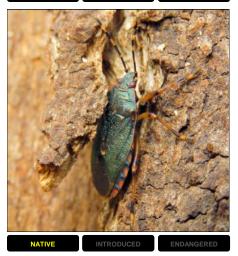












#### Shield bug

Members of a Hemiptera Order which includes species known as the Stink Bugs and Shield



Bugs. It is found throughout Australia. and typically grow to 13 mm, though some species grow to 20 mm. They feed on fruit, crops such as corn and stems and leaves of some plants.

Order: Hemiptera Family: Pentatomida Species: Unknown

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Order:	Hemiptera
Family:	Pentatomida
Species:	Unknown



### **BUGS - SHEILD BUGS**





#### Shield bug

Members of a Hemiptera Order which includes species known as the Stink Bugs and Shield



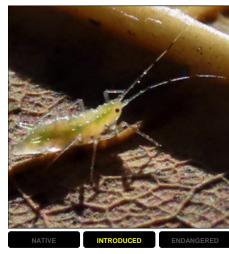
Bugs. It is found across Australia. and typically grow to 13 mm, though some species grow to 20 mm. They feed on fruit, crops such as corn and stems and leaves of some plants.

Order:	Hemiptera
Family:	Pentatomida
Species:	Unknown

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### **BUGS - APHIDS**







#### **Bluegreen aphid**

Members of the Hemiptera order which includes species known as the Stink Bugs and



Shield Bugs, there are over 4,400 species of Aphid worldwide. Found throughout Australia, they grow to 5 mm and feed primarily on sap from plant stems. Aphids are known as one of the most destructive of all insect species.

Family:AphidoideaGenus:AcyrthosiphonSpecies:Acyrthosiphon kondoi

#### Cabbage aphid

Members of the Hemiptera order which includes species known as the Stink Bugs and



Shield Bugs, there are over 4,400 species of Aphid worldwide. Found throughout Australia, they grow to 4 mm and feed primarily on sap from plant stems. Aphids are known as one of the most destructive of all insect species.

Family:AphidoideaGenus:BrevicoryneSpecies:Brevicoryne brassicae

#### Rose aphid

Members of the Hemiptera order which includes species known as the Stink Bugs and





QLD

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W.A.

N.T.

TAS

VIC N.S.W. QLD S.A. W.A. N.T. TAS



known as the Stink Bugs and Shield Bugs, there are over 4,400 species of Aphid worldwide. Found throughout Australia, they grow to 4 mm and feed primarily on sap from plant stems. Aphids are known as one of

Family: Genus: Species:

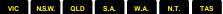
Aphidoidea Macrosiphum Macrosiphum rosae

the most destructive of all insect species.

















#### Bee fly

Bee flies are a native fly comprise hundreds of different genera. Overall little is known



about each species. It is found across Australia and grows to 22 mm. Adults feed on nectar and pollen with some species being pollinators. It is seldom seen, is not harmful and is not considered to be a pest.

Bombyliidae Family: Unknown Genus: Species: Unknown

#### **Bristle fly**

A larger member of the Rutilia genus, it is a native fly found in all states of Australia. It grows



to 25 mm and is parasitoid, meaning it lays its larvae in other insects where it grows in the host (at its expense) to maturity. This fly is known to deposit its larvae in late instar larvae of Scarab beetles.

Tachinidae Family: Genus: Rutilia Species:

### Unknown

#### Common green bottle fly

A common blow-fly found in all states of Australia. It grows to 14mm and lives for up to 20



days. It feeds on nectar and carrion and prefers most habitats (except the most arid and cold environments). It is often seen in urban areas. The maggots (larvae) are used for maggot therapy.

Family: Calliphoridae Lucilia Genus: Lucilia sericata Species:

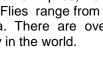
#### Crane fly

Also known as the Mosquito Hawk and Mayfly, it is found throughout Australia, it feeds on

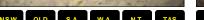


nectar. This species does not feed on mosquito's as the name implies, nor does it bite humans. Crane Flies range from 2 mm to 60 mm in Australia. There are over 1,000 species of Crane Fly in the world.

Class:	Insecta
Order:	Diptera
Species:	unknown



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#### Crane fly

Also known as the Mosquito Hawk and Mayfly, there are over 1,000 species of Crane



Fly. Crane Flies are found throughout Australia and feeds on nectar. This species does not feed on mosquito's as the name implies, nor does it bite humans. Crane Flies range from 2 mm to 60 mm in Australia.

Insecta Class: Order: Diptera Species: unknown

#### Crane fly

Also known as the Daddy-long leg, there are over 1,000 species of Crane Fly. Crane



Flies are found throughout Australia and feeds on nectar. This species has very long legs. Crane Flies are a predatory fly that is often found in lightly shaded bushland near water. Crane Flies range from 2 mm to 60 mm in Australia.

Family: Tipulidae Genus Tipula Species: unknown

#### Frit fly

Also known as Grass Flies, there are over 2,000 species worldwide. They are small flies,



usually growing from 2 mm to 3 mm and are often considered a pest due to their impacts on agricultural crops such as wheat, oats, barley and a number of grasses.

Chloropidae Family: Oscinella Genus: Unknown Species:

#### Colden tachinid fly

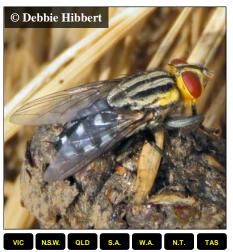
A brightly coloured orange and black parasitic fly found in all states of Australia. It grows to



mm and prefers open bushland, 15 woodlands and forests, though will also be found in parks and gardens where it paralyses and then lays its eggs on hosts insects, where they hatch and larvae grow. They are commonly mistaken for house flies.

Family: Genus: Microtropesa Species: Microtropesa sinuata

Tachinidae

















#### Frey flesh fly

A common and widespread fly that is found world-wide and grows to 15 mm. As suggested



by its name, the larvae of the fly feeds on decaying meat, though some species feed on other small insects feeding on the decaying flesh.

Family:StratiomyidaeGenus:SarcophagaSpecies:Sarcophaga aurifrons

#### Horse fly

Also known as a March Fly, it is found in all states of Australia. It grows to 15 mm and the male



feeds on nectar while the female feeds on blood from humans and animals. The female inflicts a painful bite. They prefer bushland, woodlands and forests.

Family: Tabanidae Genus: *Tabanus* Species: *Unknown* 

#### Horse fly

Also known as a March Fly, it is found in all states of Australia. It grows to 15 mm and the male



feeds on nectar while the female feeds on blood from humans and animals. The female inflicts a painful bite. They prefer bushland, woodlands and forests.

Family: Tabanidae Genus: *Tabanus* Species: *Unknown* 

#### Horse fly

The sting from the female horsefly is immediately painful and can cause swelling in some

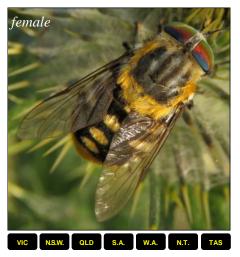


people if not treated quickly. They push their mandibles through the skin of their victims to gain access to the victims flood. Due to the mandibles length, they can penetrate clothing as well as animals fur.

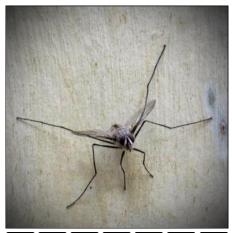
Family:	Tabanidae
Genus:	Tabanus
Species:	Unknown

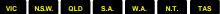


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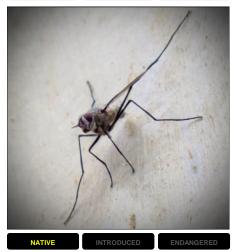














#### Horse fly

Also known as the Flowereating March Fly, it is native to Australia. It grows to 10 mm



length and unlike other species of horse fly that feed on blood, this species strictly feeds on plant nectar. It prefers bushlands, woodlands and forests and ill mimic bees to ward off predators.

Family: Tabanidae Genus: Scaptia Species: Scaptia auriflua

#### Hoverfly

Also called flower fly and the yellow-shouldered stout hover fly, it is one of the two most



common Hoverflies in Australia and is found in all states of Australia. It grows to 15 mm and adults feed on nectar and pollen. They prefer most habitats except desert and very high alpine areas.

Syrphidae Family: Genus: Simosyrphus Species: Simosyrphus grandicornis

#### Long-legged fly

Found in all states of Australia, there are over 7,000 species of Long-legged Fly. They have



extremely long legs for their bodies, transparent wings and are a predatory fly found in lightly shaded bushland near water.

Family: Dolichopodidae Genus unknown Species: unknown

#### Long-legged fly

Found in all states of Australia, there are over 7,000 species of Long-legged Fly. They have



extremely long legs for their bodies, transparent wings and are a predatory fly found in lightly shaded bushland near water.

Family: Genus unknown Species: unknown

Dolichopodidae

AGE



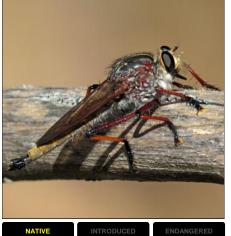




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#### May fly

Also known as a Shadfly, it is a small aquatic fly that grows to 10 mm and only lives hours or a



few days. There are over 2,500 species worldwide. In their immature nymph stage they last for up to one year in fresh water. As adults their main purpose is mating and laying eggs. They do not eat during this stage.

Leptophlebiidae Family: Genus: Unknown Species: Unknown

#### **Robber fly**

There are over 7,000 species of Robber Fly that have been described. All have three eyes,



a stout and spiny legs. They grow to 5cm though are usually around 3cm. They feed on other insects including flies, beetles, spiders, bees, ants etc and can bite humans.

Family: Asilidae Unknown Genus: Species: Unknown

#### **Robber fly**

There are over 7,000 species of Robber Fly that have been described. All have three eyes,



a stout and spiny legs. They grow to 5 cm though are usually around 3 cm. They feed on other insects including flies, beetles, spiders, bees, ants etc and can bite humans.

Asilidae Family: Genus: Unknown Unknown Species:

#### Sawfly larvae

Also called the Spitfire, it is found in all states of Australia. Larvae looks like a caterpillar,



though has six or more prolegs on the abdomen, where caterpillars have five or less. They are herbivorous and feed on plant material. It reach this stage from August and develops into sawflies around May. It prefers Eucalypt forests, woodlands and bushland.

Family: Pergidae Genus: Perga Species:

Perga affinis









#### Soldier fly

A common and widespread fly that grows to 16 mm and lives for up to 8 days. It is seldom



seen and is not considered to be a pest. It helps keep the number of house flies down. It is not attracted to humans or our food.

Family: Genus: Species: Stratiomyidae Hermetia Hermetia illucens

#### Vinegar fly

Also known as the Common Fruit Fly, it is found in all states of Australia. It grows to 4 mm



and feeds on rotting fruit. It has red eyes and females have more stripes on their abdomen than males. While the name can cause confusion, this is not the species of fruit fly that causes damage to fruit crops in Queensland and New South Wales.

Family:DrosophilidaeGenus:DrosophilaSpecies:Drosophila melanogaster



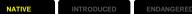
### BEES & WASPS













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NATIVE



#### Australian hornet

A member of the potter wasp family, it is found in all states of Australia (except Tasmania).



Adults grow to 30 mm and feed exclusively on nectar. Larvae feed on small spiders and caterpillars previously caught by the female and sealed in its mud nest with them. They build nests in safe locations from mud collected locally.

Family: Vespidae Genus: Abispa Species: Abispa ephippium

#### Black digger wasp

One of over 130 species of Sphex wasp found worldwide and in all states of Australia. It grows to 25 mm, prefers bushlands and forests and the female digs into soil and feeds on baby crickets and grasshoppers which it paralyses with its sting.



woodlands,

Family: Sphecidae Sphex Genus: Species: Sphex cognatus

#### **Blue-banded bee**

An Australian native found in all states of Australia (except Tasmania). It grows to 12 mm



and feeds on pollen. While they do have a sting, they rarely sting humans. There are over 250 species of bee in the Amegilla with many being Genus. almost undistinguishable from each other.

Family: Apidae Genus: Amegilla Amegilla cingulata Species:

#### Blue flower wasp

Also known as the Black Flower Wasp and the Hairy Flower Wasp, it is found in all states of



Australia. It grows to 30 mm and feeds on nectar. Its wings are black with a distinctive shiny blue sheen. It has extremely thick antennae. It lays its eggs in beetles and soil insects found underground.

Scoliidae
Scolia
Scolia soror

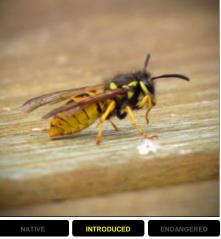


### BEES & WASPS









### Family: Genus:

caterpillar.

Sphecidae Podalonia Species: Podalonia tydei

dig a hole in the sand, deposit a large hairless caterpillar in it, lay their eggs in the hole and fill it in. The larvae of the wasp incubate in the

#### European wasp

Found in the southern states of Australia. It grows to 14 mm and feeds on other insects,



sweet fruits, nectar and human waste. It prefers temperate areas of moderate rainfall. If threatened, this wasp will attack predators and is capable of repeated stings.

Vespidae Family: Vespula Genus: Species: Vespula germanica

#### Ichneumonid wasp

Also known as the Orange Caterpillar Parasite Wasp, it is found across Australia. This



species grows to 20 mm and feeds on nectar. It uses its Ovipositors to insert eggs into a host such as a caterpillar larva. Nearly all of the wasps in the Ichneumonidae do not sting.

Family: Ichneumonidae Genus: Netelia Netelia Producta Species:

#### Ichneumonid wasp

A parasitic wasp with over 80,000 species found in all states of Australia. The larvae



feeds on other insects which then usually die. It is a solitary insect that grows from 3 mm to 130 mm. Although it looks dangerous, it does not sting like other wasps.

Class: Insecta Order: unknown Species:

Hymenoptera

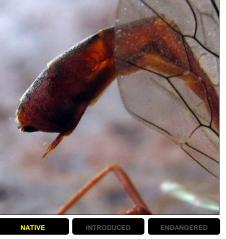


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NATIVE





Caterpillar-hunter wasp

Often referred to as sand wasps, the podalonia wasp is found in all states of Australia. It grows to 32 mm and feeds on pollen. They



### BEES & WASPS









#### Orchid dupe wasp

A native found in all states of Australia. It grows to 32 mm and feeds on caterpillars and



grubs. It prefers bushland, woodlands and forests and open grassed countryside. It has extremely long antenna for its size. They are able to sting humans and some may have a significant reaction to their sting.

Family: Ichneumonidae Genus: Lissopimpla Species: Lissopimpla excelsa

#### Western honey bee

Also known as the European Honey Bee, it is found in all states of Australia. It grows to



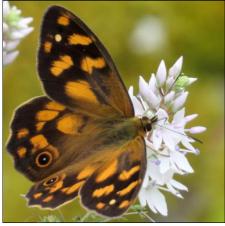
16 mm and feeds on pollen which it returns to its hive where worker bees process it into honey. It will sting predators once to defend its hive before it dies. This can kill humans who are anaphylactic.

Apidae Family: Genus: Apis Species:

Apis mellifera

### BUTTERFLIES















Male © Debbie Hibbert

#### Australian painted lady

An Australian Native found in south eastern Australia from Queensland to South Australia



and Tasmania. It grows to 36 mm with a wingspan of 46 mm and feeds on nectar. It prefers woodlands, bushlands and forests and is often seen in urban areas including parks and gardens.

Family: Nymphalidae Genus: Vanessa Species: Vanessa kershawi

#### Bank's brown butterfly

An medium sized Australian native found in eastern Australia from Queensland to



Victoria. It grows to 60 mm long and feeds on nectar. It prefers sub-alpine bushland, woodlands and forests. Caterpillars are initially green with a black head, instars are brown and covered in white tubercles with wavy dark lines along their side and back.

Nymphalidae Family: Genus: Heteronympha Species: Heteronympha banksii

#### Blue triangle butterfly

An Australian Native also known as the Common Bluebottle, it is found in all



states of Australia. It grows to 75 mm and feeds on nectar and sweet fruits found rotting. It prefers moist woodlands and forests and is often seen in urban areas.

Family: Papilionidae Genus: Graphium Graphium sarpedon Species:

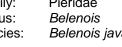
#### Caper white butterfly

A migratory Australian native found in south eastern Australia from Queensland to South



Australia and Tasmania. It grows to 34 mm and feeds on caper shrubs, nectar and fruit. It prefers forests, woodlands, bushland and urban parks and gardens. The larvae is brown to olive green, with yellow and white dots.

Family:	Pieridae
Genus:	Belenois
Species:	Belenois java



### BUTTERFLIES

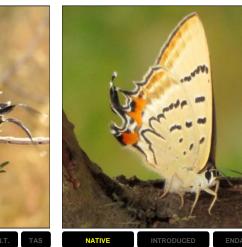














#### Common brown

Found in southern Australia, from Victoria to Western Australia and Tasmania. The



male has a wingspan up to 60 mm and the female up to 70 mm. It feeds on Poaceae (flowering plants). It prefers grasslands, wetlands, bushland and forests.

Family: Nymphalidae Genus: Heteronympha Heteronympha merope Species:

#### Common grass blue

А very common small Australian native butterfly also known as common grass blue



and clover blue, it is found in all states of Australia. It grows to 22 mm and females wingspan is slightly larger. It feeds on nectar and prefers grasslands and urban areas, and are often seen in large numbers. It is usually approachable if you move carefully.

Lycaenidae Family: Genus: Zizina Zizina labradus Species:

#### Common imperial blue

An Australian native also known as the Imperial Hairstreak, it is found in eastern Australia from



Queensland to Victoria. It grows to 40 mm and prefers bushland, woodlands and countryside. It has an unusual mutual relationship with certain ants that feed on food that its pupae secretes. In return the ants protect the organism.

Family: Lycaenidae Genus: Jalmenus Species: Jalmenus evagoras

#### **Dainty swallowtail**

An Australian Native known as the Citrus Butterfly and Dingy Swallowtail. It is



found in all states of Australia (except Western Australia). It grows to 50 mm and feeds on nectar and sweet fruits found rotting. It prefers open bushland and forests, woodlands and open country areas.

Family:	Papilionidae
Genus:	Papilio
Species:	Papilio anactus



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# BUTTERFLIES





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#### Great eggfly

Also known as the Blue Moon Butterfly, it is found in all states of Australia (except Tasmania).



It grows to 85 mm (wingspan) and feeds on nectar and sweet fruits found rotting. It prefers woodlands and bushlands and is often seen in urban areas or areas with a higher rate of deciduous trees.

Family: Nymphalidae Genus: Heteronympha Species: Heteronympha bolina

### **Imperial Jezebel**

A butterfly endemic to Australian and found in NSW, Victoria and SA. It grows to



50 mm and feeds on nectar from trees such as plums and cherries. It prefers eucalypt woodlands and bushlands and is often seen in urban areas in fruit trees. Larvae are shiny black and covered in white hairs and spin a silken web on host plants.

Family: Pieridae Genus: *Delias* Species: *Delias harpalyce* 

### Macleays swallowtail

An Australian native found in eastern Australia from Queensland to Victoria and



Tasmania. It grows to 55 mm and feeds on nectar and sweet rotting fruit. It prefers bushland and forests and is one of two subspecies of *macleayanus*, the other being *moggana*, found in Victoria and Tasmania.

Family:PapilionidaeGenus:GraphiumSpecies:Graphium macleayanusSubsp.macleayanus

#### Swordgrass brown

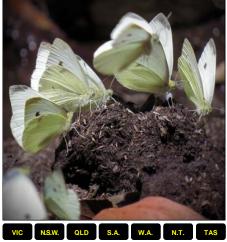
An Australian Native, found in south eastern Australia from Queensland to South Australia.



It grows to 50 mm with a wingspan of 60 mm and feeds primarily on the Red-fruit Sawsedge *(Gahnia sieberiana)*. It prefers moist bushland, woodlands and forests where the perennial Red-fruit Saw-sedge tussock grass is found.

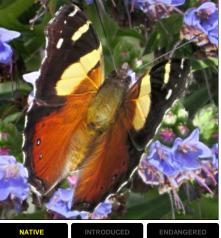
Family:NymphalidaeGenus:TisiphoneSpecies:Tisiphone abeona

# **BUTTERFLIES**









#### White cabbage butterfly

Also known as the Cabbage Moth, White Cabbage Butterfly and White Butterfly. It was



accidently introduced into Australia and are considered a pest because of crop damage. It lives as a moth for around 14 days before dying.

Family:PieridaeGenus:PierisSpecies:Pieris rapae

### Yellow admiral butterfly

An Australian native also known as the Australian Admiral Butterfly, it is found in all states



of Australia. It grows to 50 mm and feeds on nectar and sweet fruits found rotting. It prefers woodlands and bushlands and is often seen in urban areas or areas with a higher rate of deciduous trees.

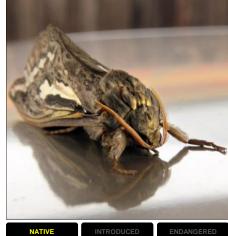
Family:NymphalidaeGenus:VanessaSpecies:Vanessa itea













#### Australian grapevine moth

A native moth found in all states of Australia (except the NT). It grows to 30 mm long with a



wingspan to 50 mm and feeds on nectar. It prefers cooler bushland, woodlands and forests. The adults live for up to 3 weeks. The Indian myna bird was introduced to reduce the numbers of this and other insect species considered pests. It is now a pest bird itself.

Noctuidae Family: Genus: Phalaenoides Species: Phalaenoides glycinae

#### Australian yellow moth

A native day flying moth also known as the golden grass moth and the willowherb moth,



it is found in all states of Australia (except the NT). It has a wingspan to 30 mm and larva commonly feed on guinea flowers (hibbertia sp.) It prefers bushland, woodlands and drier forests.

Family: Geometridae Anachloris Genus: Species: Anachloris subochraria

#### **Bardie moth**

An Australian native also known as the bardi moth or rain moth, it is found in southern Australia



from New South Wales to Western Australia and Tasmania. It grows to 70 mm. The larvae are wood borers who burrow into the ground near native trees and feed on roots. Adult moths do not feed and only live a few days. Grubs were a preferred food for Aboriginals.

Family: Hepialidae Genus: Trictena Species: Trictena atripalpis

#### Black & white tiger moth

A black and white tiger moth found in southern Australia from NSW to WA. It grows to 30 mm



length and feeds on nectar. It prefers bushland and forest areas and are found in cooler alpine areas. It has orange on its abdomen and underparts.

Subfamily: Arctiidae Genus: Ardices Species: Ardices glatignyi







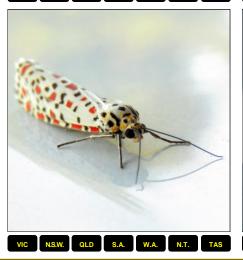
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#### **Bogong moth**

A migratory moth found in all states of Australia (except the NT). It grows to 35 mm long,



spends winter in warm areas breeding, and migrates to the Vic. and NSW alps in summer and aestivates (summer hibernation). A food for the critically endangered Mountain Pigmy Possums, it was also eaten by Aboriginals.

Noctuidae Family: Genus: Agrotis Species: Agrotis infusa

### Cabbage centre moth

Found in all states of Australia. It has a wingspan up to 10 mm and feeds on green leafy plants



and vegetables in the genus Brassica such as cabbage, cauliflower, broccoli and brussels sprouts. It is found in bushland, woodland and forests, though is also found near farming areas where they can do great damage to crops.

Crambidae Family: Hellula Genus: Species: Hellula hydralis

#### Crimson tiger moth

Found in eastern Australia from Queensland to Victoria and Tasmania. It grows to 40 mm,



has a 75 mm wingspan. Larvae feed on nectar and sweet fruits that it finds, including fruits that have fallen and are rotting on the ground. It prefers woodlands, bushlands and grasslands.

Subfamily: Arctiidae Genus: Ardices Ardices curvata Species:

#### Crotalaria moth

Also known as the Salt and Peper moth, it is found in all States of Australia, as well as



in Africa, Europe, Asia and most countries in the tropics. It grows to 20 mm and feeds primarily on a member of the pea family called Crotalaria. It prefers woodlands, bushlands and country area, but is often seen in urban areas.

Family: Erebidae Genus: Utetheisa Utetheisa lotrix

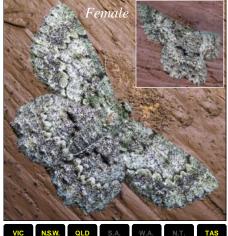


Species:









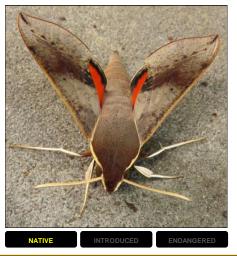












#### Fallen bark looper

An Australian Native moth also known as the beautiful leaf moth, it is found in south



eastern Australia from Queensland to South Australia and Tasmania. It grows to 38 mm and feeds on nectar and fruit. The larvae feeds on eucalypt leaves. It prefers woodlands and bushlands, though is also found in urban parks and gardens.

Family:GeometridaeGenus:GastrophoraSpecies:Gastrophora henricaria

#### **Green looper**

Also known as the textured emerald, it is a medium sized moth native to eastern Australia



from Queensland to Victoria and Tasmania. Females grow to 20 mm with a wingspan to 42 mm and is found from November to April. It has a distinctive pale to deep green colour which fades. Males are smaller with a wingspan to 30 mm.

Family:GeometridaeGenus:HypodoxaSpecies:Hypodoxa muscosaria

#### Gum leaf skeletoniser

A native moth found in all states of Australia. It appears twice yearly, the grubs feed on leaves



and the moth grows to 30 mm and feeds on nectar and prefers eucalypt bushland, woodlands and forest. The grub is nicknamed the mad hatterpillar as when shedding its exoskeleton, the head component remains and leads to its head appearing larger.

Family: Nolidae Genus: Uraba Species: Uraba lugens

#### Hawk moth

A large moth found in all states of Australia. It grows to a length of 80 mm with a wingspan of



70 mm and prefers bushland, woodland, forests and parks and urban gardens. The larvae feed on leaves and other plant parts. The moth has a cigar-shaped body and orange on their back under-wings.

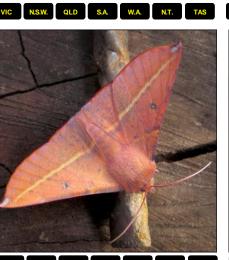
Family:	Sphingidae
Genus:	Hippotion
Species:	Hippotion scrofa



















 Female

 Image: Constraint of the second se

#### Horehound plume moth

A moth Introduced into Australia as a biological agent to combat <u>Marrubium vulgare</u>



(an invasive weed introduced into Australia in the 1800s as a medical herb). It is found in all states of Australia, grows to 45 mm and feeds on the horehound plant (*Marrubium vulgare*).

Family:PterophoridaeGenus:WheeleriaSpecies:Wheeleria spilodactylus

#### **Mistletoe moth**

Also known as the mistletoe day moth, it is a brown native moth found in all states of



Australia. The caterpillar grows to 6 cm and the moth to 5 cm long. The moth feeds on nectar from some mistletoe species hanging from eucalypt trees. The moth has distinctive black and white bands through the wings. When breeding, they fly high to meet mates.

Family: Noctuidae Genus: Comocrus Species: Comocrus behri

#### Pink bellied moth

A pink coloured native moth found in all states of Australia (except the NT). It grows to



50 mm length, a wingspan of 70 mm and the partially orange coloured larvae feed on nectar from species of grevilleas, banksias and hakeas. It prefers bushland, woodlands and forests with those species present.

Family:GeometridaeGenus:OenochromaSpecies:Oenochroma vinaria

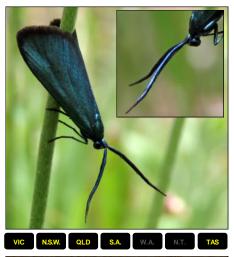
#### Red gum ghost moth

An Australian Native moth found in south eastern Australia from Queensland to South



Australia. It pupates in holes in the ground up to 10 mm in width and moths are to 80 mm long. Larvae feed on the roots of red gums and grubs are a preferred fishing bait fishing the large inland rivers. The grub was also a preferred food for early Aboriginals.

Family: Hepialidae Genus: *Abantiades* Species: *Abantiades marcidus* 

















#### Satin-green forester

A medium sized satin green moth found south eastern Australia from QLD to SA and



Tasmania. It prefers woodlands and bushland, males grow to 20 mm long with a wingspan to 30 mm while females are smaller with a length to 15 mm and. a yellow turf of hair at the tip of their abdomen. Larvae feed on some species of guinea flower.

Family:ZygaenidaeGenus:PollanisusSpecies:Pollanisus viridipulverulenta

#### Southern old lady moth

A large Australian and New Zealand native moth, which is also found on Norfolk Island



and Macquarie Island. It is found in Victoria, South Australia and southern Western Australia. It grows to 50 mm and feeds on Acacia (wattle). It prefers areas rich in Acacia and is often found in metropolitan areas.

Family: Noctuidae Genus: *Dasypodia* Species: *Dasypodia selenophora* 

#### Tiger moth

Also known as the Oragenshoulder Wasp Moth, it is an Australian native found in



Eastern Australia from Queensland to Victoria. It grows to 20 mm length and feeds on nectar. It prefers bushland, woodlands and dry forest areas near water. It will deceptively act in a wasp-like manner when threatened. It does not have white tips on its antennae.

Subfamily: Arctiidae Genus: Amata Species: Amata humeralis

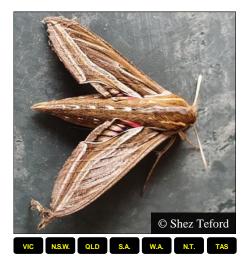
#### Tussock moth

A small white moth found in all states of Australia (except WA and the NT). It grows to 25 mm



long with a wingspan to 30 mm and feeds on nectar. It prefers bushland, woodlands and drier forests. Females have a yellow tuft on their tails. Larvae are black and hairy with two red spots on their back. Pupation occurs in a thin brown cacoon under a leaf or pedal.

Family:	Erebidae
Genus:	Euproctis
Species:	Euproctis melanosoma





#### Vine hawk moth

Also known as the silver-striped hawk moth, it is a brown native moth found in all states of



Australia. It is also found on most continents in the world. It grows to 40 mm length, a wingspan of 60 mm and as a reddish patch on the wings near the abdomen. First described in 1758, larvae feed on some crops, causing them to be considered a pest.

Family:SphingidaeGenus:HippotionSpecies:Hippotion celerio

# DRAGONFLIES

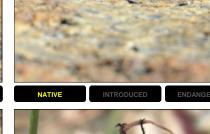














#### Australian emerald

A native dragonfly found in all states of Australia. It grows to 10 cm and feeds on other



insects. It prefers open areas in woodlands and bushland, especially near rivers, streams, lakes and smaller bodies of water. It especially likes to rest on warm rocks exposed to sunlight.

Family: Corduliidae Genus: Hemicordulia Hemicordulia australiae Species:

#### Blue skimmer

A dragonfly found in all states of Australia. It grows to 5 cm and feeds on other insects. It



prefers open areas in woodlands and bushland, especially near rivers, streams, lakes and smaller bodies of water. It especially likes to rest on warm rocks exposed to sunlight. Females are yellow with black markings.

Libellulidae Family: Orthetrum Genus: Species: Orthetrum caledonicum

#### Scarlet percher

Male

Found in all states of Australia. It grows to 45 mm length and feeds on other small insects. It



prefers open areas in woodlands and bushland, especially near rivers, streams, lakes and smaller bodies of water. It especially likes to rest on warm rocks exposed to sunlight. The male is bright red while the female is a duller yellow-ochre.

Family: Libellulidae Genus: Diplacodes Species: Diplacodes haematodes

#### Southern tigertail

A native dragonfly found in south eastern Australia from NSW to Victoria. It grows to



7 cm and feeds on other insects. It prefers bushland and forests, especially near alpine rivers and streams. It is black with yellow to white markings along its body.

Family:	Synthemistidae
Genus:	Eusynthemis
Species:	Eusynthemis guttata



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# **DRAGONFLIES**





### Yellow emperor

Also known as the Australian Emperor, it is found in all states of Australia. It grows to 10 cm



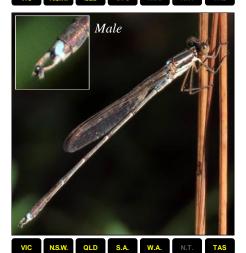
and feeds on other insects. It prefers open areas in woodlands and bushland, especially near rivers, streams, lakes and smaller bodies of water. It especially likes to rest on warm rocks exposed to sunlight.

Family:	Aeshnidae
Genus:	Hemianax
Species:	Hemianax papuensis

## DAMSELFLIES















#### Bronze needle damselfly

A native large damselfly found in eastern Australia from QLD to Victoria. It grows to 9 cm and



feeds on other insects which it catches in flight. It prefers streams, rivers, lakes and pools in bushland, woodlands and open forests. It has a metallic bronze-black to green-black back and perches with wings partially or fully extended.

Synlestidae Family: Genus: Synlestes Species: Synlestes weyersii

#### Common flatwing

A very common damselfly also known as the Australian flatwing. It is found in eastern



Australia from QLD to Victoria. It grows to 4.5 mm long and prefers areas in bushland and forests close to water. It feeds on insects such as mosquitoes, flies, gnats and even butterflies which they catch in flight. Both male and female look very similar.

Family: Argiolestidae Genus: Austroargiolestes Species: Austroargiolestes icteromelas

#### Slender ringtail damselfly

A slender medium sized native damselfly found in all states of Australia (except the NT). It



grows to 11 cm and feeds on other insects which it can catch in flight. It prefers streams, lakes and pools in bushland, woodlands and open forests. It rests on warm rocks, small branches and upright grasses in sunlight.

Family: Lestidae Genus: Austrolestes Species: Austrolestes analis

#### Swamp damselfly

A native damselfly also known as the swamp bluet. It is medium sized and found in



south eastern Australia from NSW to SA and Tasmania. It grows to 9 cm and feeds on other insects which it catches in flight. It prefers streams, rivers, lakes and pools in bushland, woodlands and open forests. It rests on warm rocks in sunlight.

Family: Coenagrionidae Genus: Coenagrion Species: Coenagrion lyelli



# **GRASSHOPPERS CRICKETS**



















#### **Bush cricket**

Also known as Katydids and with over 6,400 species, they are found in all states of



Australia. They grow to 6 cm and feed on a variety of garden shrubs. They prefer bushland, woodlands, forests and urban gardens.

Order: Orthoptera Family: Genus:

### Tettigoniidae Simplex

### Commmon macrotona

A small grasshopper found in all states of Australia (except the Northern Territory). It grows



to 30 mm and feeds on vegetation including leaves and grasses. It is found in bushland, woodlands, forests and countryside areas. It is camouflaged and hard to see on their own, though they mostly group together making them easier to see.

Order: Acrididae Family: Macrotona Genus: Macrotona australis

#### Comon pardillana

A large grasshopper with long antenna. It is found in all states of Australia. It grows to 50 mm



and is largely inactive during the day. It is found in open bushland areas throughout Australia and is well camouflaged.

Acrididae Family: Genus: Species:

Pardillana Unknown

#### Cricket

There are over 900 species of cricket and they are found in all stated of Australia. They grow



to 20 mm and are omnivorous scavengers that feed on vegetable matter including fungi, fruit, rotting matter and occasionally other small insects.

Order:	Phaneropteridae
Family:	Leptophyes
Genus:	Leptophyes punctatissima

# **GRASSHOPPERS CRICKETS**









### **Field cricket**

A medium sized Australian cricket found in all states of Australia. It grows to 25 mm



and is an omnivorous feeder, preferring plants, seeds, grasshopper eggs, small insects and the pupae of moths and butterflies. It prefers bushland, farmland, forests and urban areas.

Gryllidae Family: Gryllus Genus: Unknown Species:

### Gumleaf grasshopper

A large Australian grasshopper found in all states of Australia. They grow to 55 mm and are



herbivorous feeders preferring almost any vegetable matter including grass, flowers, leaves and fruit. They prefer eucalypt forests where they blend into the foliage.

Acrididae Family: Goniaea Genus: Species: Unknown

### Matchstick grasshopper

An endangered medium sized wingless grasshopper endemic



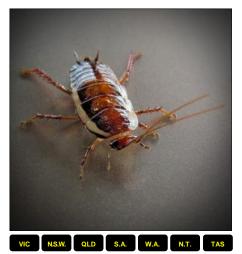
to Australia and found in NSW and Victoria. It grows to 50 mm and are herbivorous feeders preferring vegetable matter including grass, flowers, leaves and fruit. It prefers grasslands, including kangaroo grass and utilises camouflage for protection.

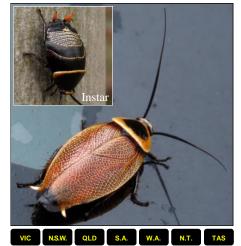
Family: Genus: Species: Morabidae Keyacris Keyacris scurra



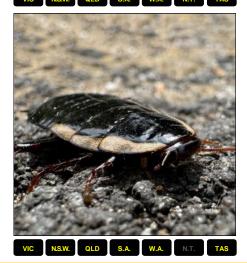


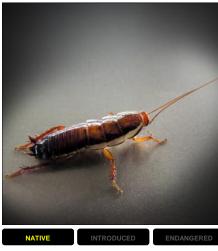
### **OTHER**

















#### Australian cockroach

Also known as a roach, it is an omnivore insect found in all states of Australia. It grows to



37 mm and is a scavenger that feeds on almost any vegetable matter or decaying organic matter. It is brown in colour and is harmless to humans. It can go long periods without food and can even live for weeks without its head.

Order: Blattidae Genus: Periplaneta Species: Periplaneta australasiae

#### Australian cockroach

A native species of cockroach found in all states of Australia. It grows to 35 mm length and is a



omnivorous scavenger, feeding on organic matter such as food scraps, though they will also eat paper and hair. They are usually found outdoors and prefer warmer weather.

Family:BlattidaeGenus:EllipsidionSpecies:Ellipsidion australe

#### Common earwig

Also known as the European Earwig, it is found in all states of Australia and grows to



15 mm. It is active at night and hides in dark cool areas during the day. It feeds on plant matter and small insects and has two tiny wings. It is a myth that they crawl into ears at night and enter or eat the brain. There are over 2,000 species of earwig worldwide.

Order: Dermaptera Genus: Forficula Species: Forficula auricularia

#### Gisborne cockroach

A native cockroach named after the city of Gisborne where it was first discovered. It is found



in all states of Australia (except the NT) and was introduced to NZ. It is one of the larger cockroaches and grows to 45 mm. It is a scavenger that feeds on most vegetable or decaying organic matter. It is shiny dark brown and is harmless to humans.

Order: Blattidae Genus: Drymaplaneta Species: Drymaplaneta semivitta

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# **OTHER**









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#### Green lacewing

An insect in the order Neuroptera which contains over 6,000 species of net-winged



insects. They are found in all states of Australia and grow to 18 mm. They feed on tiny insects and mites. They prefer bushland, woodlands and forests and have very delicate wings. They are harmless to humans.

Family:ChrysopidaeGenus:ApertochrysaSpecies:Unknown

### False garden mantis

One of the most common mantis in Australia. It is green or brown and is found in all



states of Australia (except the NT). It grow to 5 cm (male) and 7 cm (female). It prefers bushland, woodlands and urban gardens and feeds on small animals such as lizards, spiders, grasshoppers, crickets, butterflies, moths, flies, beetles, and mosquitoes.

Order: Mantodea Family: *Pseudomantis* Species: *Pseudomantis albofimbriata* 

#### Pill bug

Found across Australia, with are over 175 known species. Most grow to around 7 mm and



feed on rotting plant material. It is often mistaken for Pill millipedes, but Pill Bugs differ in that they only have one set of legs per body segment and can roll into a ball when threatened. It is most active at night.

Family: Armadillidiidae Genus: Armadillidium Species: Armadillidium vulgare

#### Two-lined treehopper

A tiny sap-sucking insect found in south eastern Australia from Queensland to South Australia



and Tasmania. They grow to 8 mm and prefer eucalypt trees in bushland, woodlands and forests. They feed on the sap of eucalypt leaves by using their piercing mouthparts to burrow into soft juvenile leaves and leaf stems. Nymphs are black with orange tones.

Family:	Cicadellidae
Genus:	Eurymeloides
Species:	Eurymeloides bicincta

## LEAFHOPPER







#### Eurymela distincta

A species of leafhopper found in southern Australia from NSW to SA and Tasmania. It grows



to 14 mm long and uses piercing mouthpieces to feed on eucalypt trees including manna gums, woollybutt and the apple box. They are attended by ants of the genus *Iridomyrmex* who feed on secreted honeydew. Adults usually hibernate over winter.

Family: Cicadellidae Genus: *Eurymela* Species: *Eurymela distincta* 

### Gum leafhopper

A species of leafhopper found in all states of Australia (except the NT). It grows to 14 mm long



and uses piercing mouthpieces to feed on eucalypt trees including manna gums, woollybutt and the apple box. They are attended by ants of the genus *Iridomyrmex* who feed on honeydew secreted by the insect. Adults usually hibernate over winter.

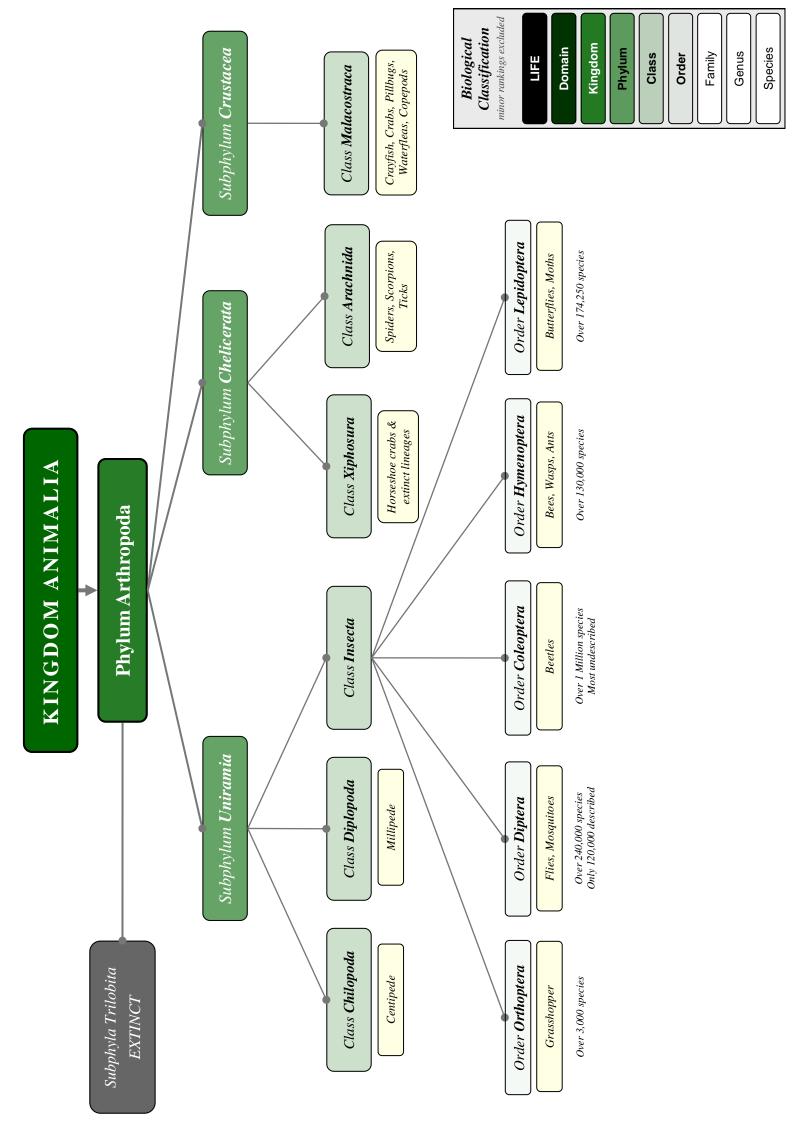
Family: Genus: Species:

Cicadellidae Eurymeloides Eurymeloides pulchra



# **BASIC GLOSSARY OF TERMS**

Abdomen	(noun) The back section of the 3 sections found on insects.
Antenna	(noun) A pair of long appendages located on the head above where the mouth is found.
Arthropod	<i>(noun)</i> An invertebrate animal with an exoskeleton (skeleton on the outside of its body), a segmented body and jointed appendages.
Carnivore	(noun) An animal or plant that feeds on flesh.
Claw	<i>(noun)</i> A hollow and sharp organ found at the end of an insect's legs. They generally have two matching claws.
Cold blooded	(noun) Organisms that take on the body temperature of their surrounding environment.
Colony	(noun) A group of social insects that live and feed together.
Endemic	<i>(adjective)</i> Prevalent or regularly found among a people or in a district; confined to a particular area ( <i>biology</i> ).
Femur	(noun) The large leg segment found on insects near the base of their leg.
Forage	(Verb) To search for food.
Insect	<i>(noun)</i> Any small arthropod animal that have three sections to their body (head, thorax and abdomen) six legs and generally one or two pairs of wings.
Juvenile	(noun) A young immature bird.
Larva	(noun) A baby insect, usually just after hatching.
Larvae	(noun) More than one Larva.
Nymph	(noun) A young immature form of some insects.
Organism	(noun) An individual plant, animal or single celled life form.
Parasite	(noun) Any organism that lives on and from another organism and survives by feeding on that organism.
Striated	<i>(adjective)</i> Having stripes or streaks, usually parallel to each other.
Taxonomy	<i>(noun)</i> The branch of science that deals with the naming and classification of all living and extinct organisms.





Artworkz

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