

FAUNA

LADYBIRDS



Ladybird beetles are one of the few groups of insects that most people can recognise, and nearly everybody actually likes to see them. They don't sting people and they have a great reputation as the gardeners' friend, eating aphids and other pest insects.

*“Ladybird, Ladybird, fly away home,
Your house is on fire and your children are gone.”*

First recorded in Tom Thumb's Pretty Song Book, 1744

What does the above chant refer to? As a child in England I used to entice a ladybird onto my hand, then recite these words while slowly turning the hand upside down, being entranced when the insect raised its brightly covered elytra, unfolded the gauzy wings beneath and – flew away. Where did this tradition come from? Did it make it to Australia? (Friends whose parents, or even grandparents, have an English background, tell me yes.) One suggestion for the origin of the rhyme is that it was chanted by farmers before burning stubble after harvest, as they wished the good insects – the ladybirds – to be safe.

The name 'ladybird' is probably of great antiquity, as the 'Lady' in this instance does not mean just any female, but 'Our Lady', the Virgin

Mary. So the name has come through the language from at least mediaeval English if not earlier and implies definite approval for the insect in the human scheme of things. Did the early monks tending their herb gardens recognise it as a friend? Probably!

Ladybirds are beetles and the Ladybird Family (Coccinellidae) has about 6000 species in 370 genera and is found worldwide. There are around 500 species from 57 genera in Australia. Most of the adults have a characteristic bowl shape and are often brightly coloured. The traditional image of a ladybird is a small bright red beetle with black spots, but there are other colours as well – orange, yellow, greenish and even black. Eggs are laid on the underside of leaves of a suitable host plant. The larvae are quite ugly and often spiny, have well formed legs and are highly mobile. Both larvae and adults are voracious predators, in fact larvae have been observed cannibalising pupae of the same species. When ready to pupate, the larva does not make a cocoon but merely attaches its tail to a leaf or twig. Some adult ladybirds feign death when they are alarmed and discharge drops of yellow blood from their leg joints. This is toxic to vertebrates, and so the discharge is presumably a defensive action.

There are two red and black species that are likely to be seen in the south west of WA. Two-spotted ladybird (*Coccinella undecimpunctata*) is introduced from Europe and is only found

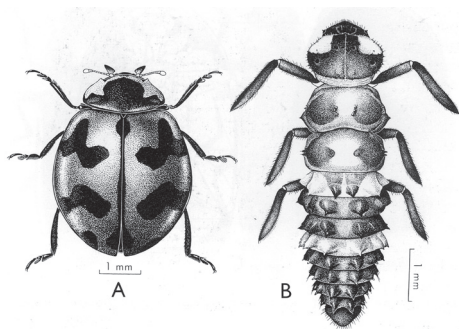
in WA and Tasmania. *Coccinella transversalis* (drawing above) is the most common ladybird species in Australia, and is also widespread in Asia. One or other of these are likely to be the ladybird you find eating aphids on your rose bushes. Both adults and larvae eat aphids but during spring and autumn the adult can also feed on nectar and pollen from various flowers.

A ladybird featured in one of the earliest and most spectacularly successful examples of biological control of a pest. In the 1880s, citrus plantations in California were being wiped out by the cottony cushion scale (*Icerya purchasi*) that had arrived from Australia - no-one knows how. It was a potential disaster. In the area around Adelaide, Albert Koebele found the cardinal ladybird (*Rodiola cardinalis*) eating the offending scale insect, and sent five shipments, a total of 514 individuals, to Los Angeles between November 1888 and March 1889. They were bred up and then distributed to growers. A year later, by the end of 1890, the scale was no longer considered a threat to citrus growers in California. Another Australian species, *Cryptolaemus montrouzieri*, has been successfully used to control mealy bugs in Hawaii.

So think of ladybirds when you get out the insecticide for crop or garden spraying – the sprays kill the good guys as well as the bad ones.

Note: For the really keen, a very technical book has recently been published: Adam Slipinski. 2007. Australian Ladybird Beetles: their biology and classification. CSIRO. It is a very, very, VERY detailed taxonomic reference, leavened by excellent colour photos.

Penny Hussey



Coccinella repanda, A adult, B. larva.
From *Insects of Australia*. 1970. CSIRO.