

# URBAN ANTICS

## Grubby 'spitfires'

Not to be confused with World War II aircraft, 'spitfires' have got us bluffed, and if you believe in the old adage 'what you see is what you get', these larvae of sawflies are very nasty little blighters. Or are they?

Among the millions of insect types, it is arguable which is more repulsive to humans—cockroaches or spitfires. While we react violently and positively to dispatch one hapless 'cocky', the discovery in garden foliage of a large clinging group of generally dark-skinned, white-bristled spitfire grubs, has most of us on the back foot.

The reason for this repulsion is the peculiar way in which they react if disturbed. All together, they tap their abdomens up and down, lift their heads in the air and individually regurgitate a large glob of thick, yellowy-green plant oil. Although they cannot spit as such, it is a most effective deterrent for would-be predators and clumsy humans. As children in the 'fifties', we were petrified of spitfires.

Adult sawflies are of the order Hymenoptera, which are described as having two pairs of glassy membranous wings hooked together in flight. They are, in fact, thick-bodied wasps. They do not sting and are not often seen, as they usually remain hidden in foliage, laying their eggs.

The name sawfly refers to the ovipositor of the adult females. This is a serrated saw-like apparatus used to abrade a leaf surface and then to lay eggs in the leaf tissue.

There are more than 170 species of sawfly in Australia. Some bore into wood, some mine leaves, but most live on foliage. In the advanced larval stage, several hundred individuals clustered together on stems and branches can defoliate small trees and some ornamental garden shrubs.

The most common defoliating sawflies found in Australia are the steel blue sawfly (*Perga dorsalis*), the

large green sawfly (*P. affinis*), the eucalyptus sawfly (*P. kirbyi*) and the small brown sawfly (*Pseudoperge lewisii*). These different species have very similar life histories and habits and are probably responsible for the larvae that we sometimes come across.

Eggs (between 30 and 90) are laid by adult sawflies in 'rafts' or 'pods' between the upper and lower leaf surfaces. They hatch in 2–8 weeks depending on species and temperature. There are six larval stages. These last from 2–4 months, again depending on the species. Steel blue sawfly larvae are present in spring and summer, while the larvae of the large green sawfly are present in autumn and winter and, consequently, take longer to develop.

One habit of larvae is that after resting in colonies during the day, they disperse as individuals to feed at night, then reform the group at daybreak. If an individual becomes separated, it taps very rapidly on a leaf or branch and the colony responds by tapping in reply until the individual is again reunited with the group. Individuals do not survive on their own.

When fully grown, larvae crawl down from their tree en masse and burrow into the soil, where they form large masses of brown cocoons. In the soil, the larvae of the large green sawfly enter a prepupal stage, which may last up to four years, but usually

lasts one or two years. In the late summer of the year of emergence, the prepupae change to pupae and the adult sawfly finally emerges from the soil 2–3 weeks later.

Life is relatively short for adult sawflies, as they only live for 7–9 days. During this time they lay their eggs and die.



### DID YOU KNOW?

- High mortality at the pupal stage, due to the effects of parasitic wasps and flies, appears to stabilise sawfly populations from year to year, as relatively few adults emerge from cocoons to start the new generation.
- Adult sawflies can bite, but they don't feed.
- Male sawflies are very rare and females are parthenogenic (they do not need to mate to reproduce).

# LANDSCOPE

VOLUME THIRTEEN NUMBER 3, AUTUMN 1998



CALM's fight against feral cats gathers ground on Peron Peninsula with the development and testing of a cat bait. See 'Approaching Eden' on page 28.



Roadside vegetation often provides vital links between remnant habitats. See our story on page 23.



What attracted early pioneers to this barren corner of Western Australia? Find out in 'Eucla Pioneers' on page 35.



A new CALM book gives bushwalkers a host of short and longer walks in Western Australia's south-west. See page 10.



Fire is an important part of Western Australia's environment. Scientists continue to discover just how important. See page 17.

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## COVER

The splendid fairy wren was one of many birds collected by John Gilbert, whose collections of specimens have been fragmented over the past 100 years or so. Now, they are being tracked down in museums around the world, and a more complete picture of their original distributions is emerging from Gilbert's original notes and labels. See story on page 40.

Illustration by Philippa Nikulinsky



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 Colour Separation by Colourbox Digital  
 Printed in Western Australia by Lamb Print  
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 Visit LANDSCOPE online on our award-winning internet site NatureBase at <http://www.calm.wa.gov.au/>



Published by Dr S Shea, Executive Director  
Department of Conservation and Land Management,  
50 Hayman Road, Como, Western Australia