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Department of Biodiversity,  
Conservation and Attractions

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# INTRODUCING SIREX

Sirex woodwasp attacks and kills pine trees. Given the right conditions it is capable of causing serious damage to pine forests.

Sirex is well established in pine forests in New Zealand, the south-east of South Australia and south-western Victoria, where it has caused extensive damage. As yet the Sirex wasp has not been found in Western Australian pine forests. Its introduction would pose a serious threat to our pine forests and the industries they support.

To protect these industries and the employment they provide it is important for Sirex to be identified early following introduction to Western Australia. If identified early there is a good chance of minimizing damage by taking remedial action.

NOTE: Sirex woodwasp is not harmful to human beings and, generally, pine trees are the only trees liable to attack.

## IDENTIFYING SIREX



Female Sirex woodwasp



Male Sirex woodwasp



Sirex woodwasp larvae

The adult female Sirex is steel-blue with a pointed projection at the rear of her body. This projection is the sheath that covers her egg-laying tube.

The adult male Sirex is steel-blue with a wide orange band on his abdomen.

The body length of adult wasps can range from 10mm to 40mm.

The Sirex larva (grub) is creamy white with a dark point at the rear end. Mature larvae vary in size with a maximum length of 40mm.

## SIREX LIFE CYCLE

During winter, female Sirex bore into the living tree to lay their eggs. After a two-week incubation period the Sirex larva hatches and immediately begins tunnelling through the tree, first towards the heartwood and then back to the outer layers of the sapwood. This tunnelling can continue for a period of up to a year, sometimes two years.

In the sapwood the larva changes into a pupa and then an adult wasp. The adult wasp bores its way out of the tree, leaving behind a small hole. The size of the hole reflects the size of the insect, usually between three and seven millimetres.

Adult wasps emerge out of the tree and go into flight at any time from January to May with a peak period in February and March.

## SIREX ATTACK

### SIGNS TO LOOK FOR



The red/brown coloured pine needles of a Sirex attacked tree.

A number of tell-tale signs show when a tree has been attacked by Sirex.

The first sign of a sick tree is the colour of the pine needles. They can be yellow or red or brown.

If this change in colour is due to Sirex (it could also be related to drought or poor soils) small beads of resin can usually be seen just below the crown. Resin dribbles may also be flowing down the trunk. (Note: Not all Sirex-attacked trees have resin dribbles.)

## INVESTIGATE FOR YOURSELF

To check for the presence of Sirex in pine trees it is necessary to cut down the dead or dying tree.

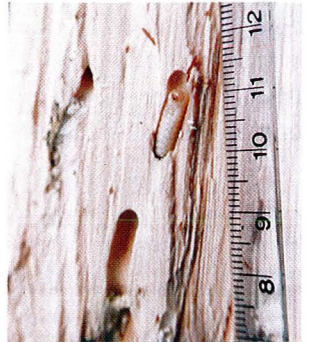
Once the tree is on the ground:

- remove a piece of bark from the middle of the stem, below the crown. If the tree has been attacked by Sirex the surface of the wood will have a yellow-brown colour. This yellow-brown colour will appear in streaks, up and down the wood.



Streaked yellow/brown surface wood, bark must be removed.

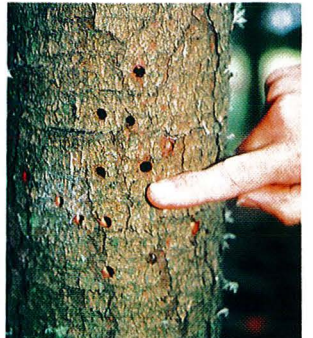
- crosscut through the stem and look for round or oval-shaped tunnels. These tunnels are made by Sirex larvae, and their length and diameter vary according to the size and stage of development the larvae reach before pupation.



Sirex tunnels and larva (numbers are in cm.)

- check the stem for round holes, between three and seven millimetres in diameter. These are exit holes bored by Sirex woodwasps to emerge from the tree.

- if the wood inside exit holes is creamy yellow in colour, the holes have been made in the current year; if the wood is greyish or if cobwebs are inside, the holes are from previous years.



Sirex exit holes.

# HELP STOP THE SPREAD

The more people who can recognize Sirex woodwasp and pine trees under Sirex attack, the less chance this forest enemy has of developing into a serious threat to the softwood industry.

Because Sirex can complete its life cycle in sawn timber there is a risk that the insect could be imported into the State.

All international imports of timber are inspected, but there are no regulations constraining importers of pine timber into WA from eastern Australia. Even if there were they would be almost impossible to police given the volume and number of import sources.

Pine that is kiln-dried, pressure treated or appropriately fumigated has a low risk of carrying live Sirex. Importers should restrict themselves to wood of these categories to help keep this insect out of the State.

If you suspect pines have been attacked by Sirex, or if you import pine timber into Western Australia, contact:

The Manager, Timber Production Branch  
Conservation and Land Management Department  
50 Hayman Road  
COMO WA 6152

## Department of Conservation and Land Management

Head Office: 50 Hayman Road  
COMO WA 6152  
Telephone: (09) 367 0333

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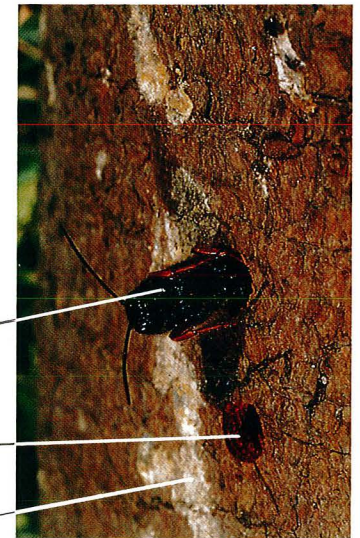
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# RECOGNIZE SIREX WOODWASP IN WESTERN AUSTRALIA

*A Sirex woodwasp emerging from a pine tree.*

*Exit hole made by another Sirex woodwasp.*

*Resin dribbles.*



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and Land Management



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