

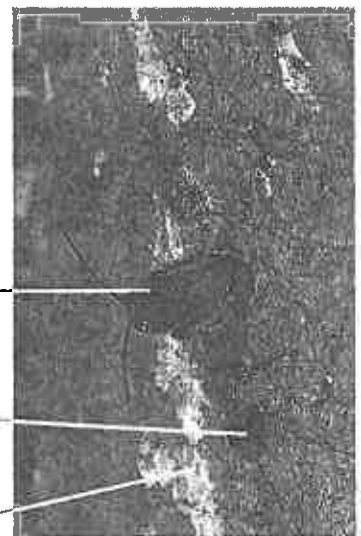
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Sirex Woodwasp in South Australia

*A Sirex woodwasp
emerging
from a pine tree.*

*Exit hole made
by another Sirex
woodwasp.*

Resin dribbles.



INTRODUCING SIREX

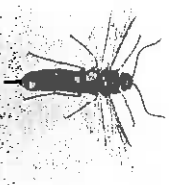
Sirex woodwasp attacks and kills pine trees and is capable of causing serious damage to softwood forests.

Large numbers of Sirex were detected in pine forests in the South-East of South Australia and in south western Victoria in 1987. Such numbers can pose a serious threat to South Australia's forest-based industries.

To protect these industries and the employment they generate it is important for Sirex to be controlled in the South-East and prevented from spreading into pine plantations, woodlots and windbreaks in other areas of South Australia.

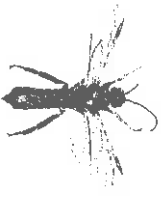
Note: Sirex woodwasp is not harmful to human beings and, generally, pine trees are the only trees liable to attack.

IDENTIFYING SIREX



Female Sirex woodwasp

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



Male Sirex woodwasp

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

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



Sirex woodwasp larvae

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

SIREX LIFE CYCLE

During summer female Sirex drill 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 round exit hole. The size of the hole reflects the size of the insect, usually between three and seven millimetres in diameter.

Adult wasps emerge and go into flight anytime from January to May with a peak period in February and March. It is during the flight season that Sirex mate and lay their eggs.

SIREX ATTACK

SIGNS

TO LOOK FOR



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.)



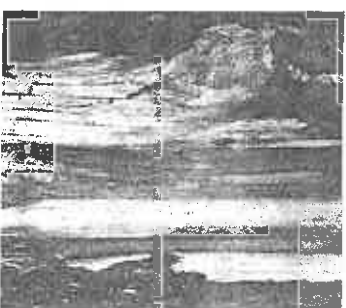
The red/brown coloured pine needles of a Sirex attacked tree.

INVESTIGATE FOR YOURSELF

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

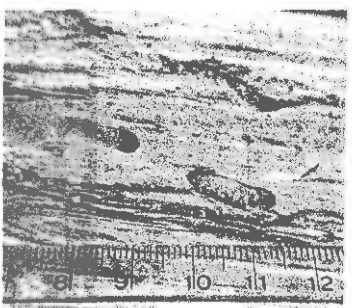
Once the tree is on the ground:

- 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 yellow/brown streaks caused by a fungus which Sirex deposit in the tree.



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

- cross cut 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. Sections of the stem can also be split to look for larva and tunnels, as shown in photo at right.



Sirex tunnels and larva. (numbers are in cm.)

- check the stem for Sirex exit holes. If the wood inside exit holes is creamy-yellow in colour they are current year's exit holes. 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 recognise Sirex woodwasps 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 quarantine regulations are in force which prohibit the transport of pine timber from a Sirex infested area to a Sirex free area.

The quarantine regulations require pine timber to be kiln dried or fumigated with methyl bromide or treated with a recognised preservative under pressure, and checked by a Forestry Quarantine Inspector, before the pine timber can be transported out of the South-East, or from interstate, into other areas of South Australia.

If you suspect pines have been attacked by Sirex or need to transport pine timber contact:

SA Woods and Forests Department
135 Waymouth Street
Adelaide SA 5000
Tel: (08) 216 7211

or your local Woods and Forests office.

~~SA Woods and
Forest Office:~~

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