

Giant pine scale

A new insect pest of pine, spruce and fir trees

Giant pine scale (*Marchalina hellenica*) is a scale insect that lives by sucking the sap of pine, fir and spruce trees.

This insect was recently recorded in Australia for the first time in metropolitan Melbourne and in Adelaide.

Trees impacted by large populations of giant pine scale suffer severe dehydration and dieback of branches, and can eventually die.

The Department of Economic Development is conducting an eradication program to protect Australia's \$1.16 billion softwood plantation industry, and to help maintain the health and safety of host trees.

Plantation foresters, arborists and the general public are encouraged to report any suspected detections of giant pine scale to the department.

What does giant pine scale look like?

Giant pine scale produces a distinctive white, cotton-like wax secretion (Figures 1-4). The adult scale insect can be up to 12 millimetres in length.

The insect prefers the lower part of the tree and mainly occurs on the trunk, but it may also be found on branches well up in the canopy, and even on exposed roots.

In addition, look out for the black sooty mould which may grow on the large amounts of honeydew produced by the insects as they feed on plant sap.

How does it spread?

Giant pine scale moves slowly. Females do not have wings and the winged males are rarely seen. Infestations where trees are close together may be of higher risk, as the insect can more easily move from tree to tree.

However, giant pine scale can also spread with human assistance. If you are working with host trees, it is important to make sure you minimise the risk of spreading the pest.

What is the impact of giant pine scale?

As this insect is new to Australia, the potential impacts of the insect on host trees here are unknown. Reports from Europe indicate that large populations of giant pine scale can cause severe dehydration and dieback of branches. In some cases, this is followed by tree death.

So far, pine death has been observed mainly in southern Greece and Crete.

The pest has also caused defoliation of *Pinus* species in parts of Italy and Turkey, with a significant impact in urban and forest environments.



Figure 1. Giant pine scale adult, showing its white wax secretion (image courtesy of Andrea Battisti, Universita di Padova, Bugwood.org)



Figure 2. Giant pine scale eggs on *Pinus radiata*



Figure 3. Lower trunk of a pine tree showing the typical white wax secretion of giant pine scale



Figure 4. Pine tree branches infested with giant pine scale

Giant pine scale - a new insect pest of pine, spruce and fir trees

What trees does it affect?

In Australia

In Melbourne and Adelaide, giant pine scale has been found on the following pine species:

<i>Pinus halepensis</i> (Aleppo pine)
<i>Pinus radiata</i> (Monterey pine)
<i>Pinus pinea</i> (stone pine)

Overseas

Overseas, giant pine scale has also been recorded on the following species:

Pines	
<i>Pinus brutia</i>	<i>P. sylvestris</i>
<i>P. kochiana</i>	<i>P. laricio tauricus</i>
<i>P. nigra salzmannii</i>	<i>P. sosnowskyi</i>
Firs	
<i>Abies cephalonica</i>	<i>A. nordmanniana</i>
Spruces	
<i>Picea engelmannii</i>	<i>P. orientalis</i>

Which trees are not affected?

Trees which may look similar to pines, spruces and firs, but are **not** hosts of giant pine scale, include cypresses and *Araucaria*, *Allocasuarina*, *Casuarina* and *Callitris* species.

Control methods

If giant pine scale is found in your garden, we will discuss treatment options with you to eradicate the pest.

A simple insecticide stem injection will be used, as foliage spraying in urban landscapes is inappropriate. This is a free service, with no costs incurred by the resident.

Mechanical controls, such as tree removal, may be used in exceptional circumstances if insecticide use is not feasible.

How you can help

Before leaving a host tree location, check your clothing, machinery and tools for signs of the pest.

Do not remove any pine, fir or spruce trees or mulch from your property without first contacting the Department of Economic Development via the Exotic Plant Pest Hotline 1800 084 881 (toll-free).

Report any white, waxy secretions you see on the trunks of pine, fir or spruce trees.

Report suspected detections

Report any suspected detections of giant pine scale by:

- phoning the Exotic Plant Pest Hotline on 1800 084 881 (toll-free)
- emailing photos of the suspected pest, together with a contact phone number and the pest's location, to plant.protection@ecodev.vic.gov.au

More information about giant pine scale can be found at www.vic.gov.au/giantpinescale

© The State of Victoria Department of Economic Development Melbourne 2015

ISBN 978-1-74146-447-4 (Print)
ISBN 978-1-74146-448-1 (pdf)

Accessibility

If you would like to receive this publication in an alternative format, please telephone the Department of Economic Development Customer Service Centre 136 186, email customer.service@ecodev.vic.gov.au, via the National Relay Service on 133 677 www.relayservice.com.au. This document is also available in on the internet at www.vic.gov.au/giantpinescale

Disclaimer

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.