

FACT SHEET



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Catchment Management
Authority
Hawkesbury-Nepean

WHAT'S HAPPENING TO THE TREES?

Grey Box Psyllid dieback in Western Sydney



Cumberland Plain Woodland damaged by Grey Box Psyllid

© Peter Ridgeway

Many Grey Box (*Eucalyptus moluccana*) trees in Western Sydney are losing their leaves due to an outbreak of a sap sucking insect known as a Psyllid or Lace Lerp (*Cardiaspina* sp.). The adult Psyllid is a small cicada like insect that lays its eggs on the leaves. The young larvae live off the leaf sap, causing the leaf to turn brown and drop off.

WHAT ARE PSYLLIDS?

Australia is home to many species of psyllid, some of which are restricted to just one or a few host plant species.

The adult psyllid is a small cicada-like insect approx 3 - 4 mm in length. After mating, females lay large numbers of small eggs on living or dead leaves, which often drop to the leaf litter. On hatching the larvae crawl to living leaves where they feed on sap. Larvae build a protective covering or 'lerp' the shape of which is useful in identifying the species of psyllid. Infected leaves rapidly die in response to hormones in the psyllids saliva.

Most psyllid species naturally occur at low densities, but some cycle through periodic outbreaks. Psyllid outbreaks typically last 2- 3 years, however outbreaks of up to 9 years have been recorded.

GREY BOX PSYLLIDS

Since the late 1990s, increasingly large areas of Western Sydney (the Cumberland Plain) have experienced outbreaks of a previously unknown psyllid. These attacks began around Blacktown and have subsequently spread across much of the region (see map). The current outbreak is unusually severe and long-term, with over 70,000 ha now affected. The psyllid responsible appears to only attack Grey Box, and is now referred to as 'Grey Box Psyllid'.

Grey Box Psyllids can be distinguished from other pests by their protective covering or 'lerp' which looks like delicate white lace. While this lerp is useful in identifying an infestation, expert identification is required for confirmation.

While some psyllid species have associations with Bell Miner birds this is not the case with Grey Box Psyllid.



A Grey Box Psyllid lerp - the unique covering protecting the feeding larva

© Mark Hartley

For further information, please contact the Hawkesbury-Nepean Catchment Management Authority

Goulburn (02) 4828 6747 | Moss Vale (02) 4861 9010 | Penrith (02) 4725 3050 | Lithgow (02) 6350 3110 www.hn.cma.nsw.gov.au



A larval psyllid exposed
© Mark Hartley



An adult Grey Box Psyllid
© Mark Hartley

WHERE DID IT COME FROM?

While psyllid outbreaks occur periodically in many parts of NSW, none have been previously recorded from the Cumberland Plain. If native, the Grey Box Psyllid may occur naturally at low levels across the Cumberland Plain and in other Grey Box woodlands. The present outbreak may have been triggered by climate, loss of vegetation or any of the many pressures affecting the Cumberland Plain woodlands.

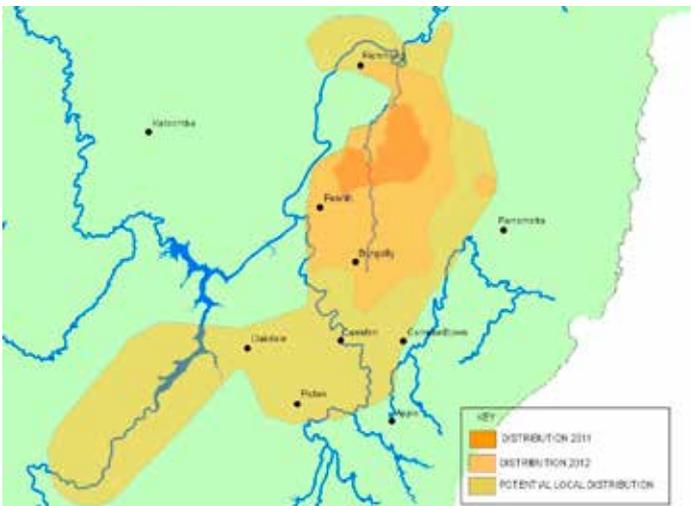
IMPACT

The impact of Grey Box Psyllid can be severe in both isolated trees and 'intact' woodlands. However, while leafless trees may appear dead, many trees are resilient and may recover if the outbreak retreats.

The full environmental impact of the outbreak is unknown. Affected trees often reduce or stop flowering and seed production, limiting replacement through seedlings. There is concern that this may impact on nectar-feeding birds, including the endangered Swift Parrot. It is possible that the outbreak may also result in changes to the composition of woodlands, for example through increased light levels to shrub and ground covers. The nature and scale of these effects is unknown.

WHAT CAN WE DO?

At present there is little that can be done to control the outbreak. However, improving general ecosystem health is likely to improve trees chances of resistance and recovery.



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PLANTING

In areas with no native understorey, planting native groundcovers and shrubs may improve tree health while also helping native wildlife. However, replanting Grey Box is not advised until the present outbreak recedes. If the outbreak proves to be long-term or permanent, replanting of 'surrogate' native canopy species may need to be considered.

CONTAINMENT

The adult psyllid is a poor flyer, and unable to travel far from the host tree unless carried on favourable winds.

Some reports suggest the outbreak may be spread via the transportation of contaminated materials (e.g. wood chip mulch). Until this is confirmed a precautionary approach should be taken, and Grey Box mulch should not be transported within Western Sydney.

While there have been no reports of Grey Box psyllid infecting nursery stock, the psyllid readily infects saplings in the wild. Nursery stocks should be regularly assessed and any infected stock destroyed.

TREATMENT

Individual trees can be treated by stem injection of selective insecticide by a qualified arborist. This may provide relief for up to three years. Note that commercial products are not yet registered for the treatment of Grey Box psyllid.

Insecticides can pose a serious risk to native wildlife, including mammals and birds – these risks must be seriously considered before any application.

WANT TO HELP?

Native plants for restoration can be sourced from your local community nursery.

Join your local Landcare or Bushcare group. For information, contact the Regional Landcare Facilitator at the Hawkesbury-Nepean Catchment Management Authority, Penrith (phone: (02) 4725 3050, web: <http://www.hn.cma.nsw.gov.au/landcaregroup>) or speak to your local council or National Parks and Wildlife Service office.

The Hawkesbury-Nepean Catchment Management Authority (HNCMA) was formed to help protect the natural values of the Hawkesbury-Nepean and ensure it continues to be a healthy and productive catchment.



Grey Box *Eucalyptus moluccana* can be identified by this distinctive bark
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