Forest Health News

SCION forests · products · innovation

No. 233, February 2013 ISSN 1175-9755

A NEW PAROPSINE BEETLE FOUND IN NEW ZEALAND

In August 2012 *Paropsisterna beata* (Chrysomelidae) was found in Wightman's Valley, Upper Hutt. It was found on *Eucalyptus nitens*. Only adults and eggs were found. The identification was made by the Ministry for Primary Industries (MPI) Plant Health & Environment Laboratory in Auckland and confirmed by Chris Reid at the Museum of Australia, Sydney.

Paropsisterna beata is an Australian species and is apparently quite common in south-eastern Australia. The adults and larvae feed on the foliage of *Eucalyptus* spp. and it has been recorded from *E. bridgesina, E. camaldulensis, E. dunnii, E. grandis, E. moluccana* and *E. polyanthemos.* Its host range is almost certainly greater than this.

There is very limited published information on its biology. In the laboratory its total development period is 5-6 weeks so it is expected that it will have two generations a year in the field. If it behaves like most other paropsines the adults will be long lived and lay eggs over quite a period of time so there will be some overlapping of generations. The adults overwinter, usually under loose bark. Paropsine adults are generally good fliers.

The adults feed on old foliage but usually lay their eggs on young foliage; the larvae feed on young foliage.

As is usually the case it is not known how *P. beata* got to New Zealand but it would seem likely that it was as overwintering adults in a container.

Only time will tell what effect *P. beata* will have on eucalypts here but on a positive note it is very likely that the eggs of *P. beata* will parasitized by *Enoggera nassaui* and *Neopolycystus insectifurax*, two Australian parasitoids that attack *Paropsis charybis,* another Australian paropsine that has been here since 1916. *P. charybdis* is the most important defoliator of eucalypts in New Zealand. For further information see http://www.nzffa.org.nz/farm-forestry-model/the-essentials/forest-health-pests-and-diseases/Pests/Paropsis-charybdis/biological-control-of-paropsis-charybdis.

MPI have produced a one page information sheet on the beetle this can be downloaded at http://www.mpi.govt.nz/news-resources/publications. Among other things it tells people what to do if they think they have found *P. beata*.

John Bain

***Paropsisterna beata* adult (10 mm).**
Photo: Peter Kelly, Museum Victoria.

***Paropsisterna beata* eggs.**
Photo: Peter Kelly, Museum Victoria.

*Newsletter of the **Scion Forest Protection team**, and the **Forest Health Reference Laboratory** (incorporating the Forest Research Mycological Herbarium (NZFRI-M), the Forest Research Culture Collection (NZFS), and the National Forest Insect Collection (FRNZ). Edited by John Bain, New Zealand Forest Research Institute Ltd, Private Bag 3020, Rotorua. <john.bain@scionresearch.com> Web site <http://www.scionresearch.com/biosecurity>*

DISTRIBUTION AND HOST LIST FOR *THAUMASTOCORIS PEREGRINUS*

Thaumastocoris peregrinus, known as bronze bug, is an Australian sapsucker that feeds on foliage of *Eucalyptus* spp. initially causing leaf bronzing and eventually leading to leaf loss and often branch loss. A population explosion led to pest status in its native area in and around Sydney in 2001/2002. Subsequently it has spread to several new countries including South Africa in 2003, Argentina in 2005 and Italy in 2011. It was first found in Auckland, New Zealand in March 2012.

The bug has proven to be very adept at dispersing within the new areas it has reached. Since first reported in New Zealand, bronze bug has been noted from two new countries in Africa. It is now present in at least seven African countries and five in South America. Bronze bug has now been found in every major eucalypt growing region in the world apart from the USA.

In New Zealand it still appears to be confined to the city of Auckland but the infested area is growing with a current spread of at least 10 km. In addition, two host species previously not recorded have been noted (Table 1).

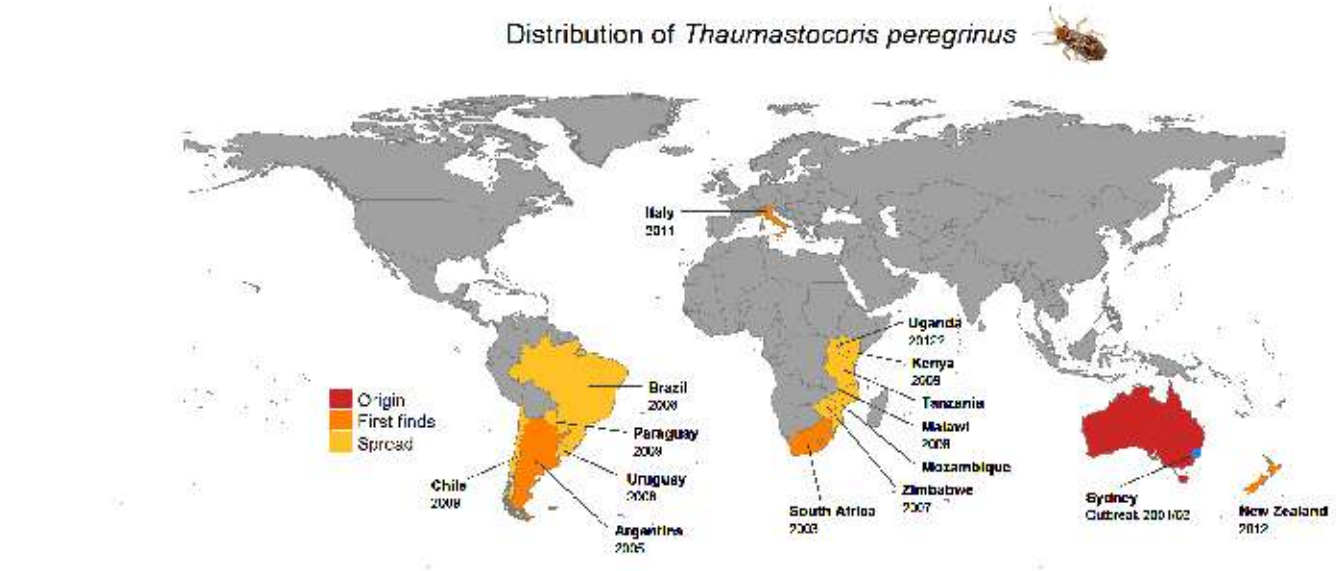
Bronzing of Eucalyptus nicholii in Auckland

Considerable control efforts are underway in other countries, primarily using biological control with an egg parasitoid. New Zealand should be following suit, given the bronze bug's rapid dispersal and known deleterious effects on host trees. This is of particular importance in the face of our country's ambition to significantly increase eucalypt stocks, as exemplified by the recent New Zealand Dryland Forests Initiative. Six species have been identified for this programme, at least two of which are recorded hosts of *T. peregrinus* (*Eucalyptus argophloia* and *E. camaldulensis*).

TABLE 1: Reported hosts, including hybrids (those in bold considered preferred). *Corymbia ficifolia* and *Eucalyptus leucoxylon* are new hosts recognized in New Zealand.

Corymbia citriodora	*Eucalyptus microcorys*
Corymbia ficifolia	***Eucalyptus nicholii***
Corymbia henryi	*Eucalyptus nitens*
Corymbia maculata	*Eucalyptus paniculata*
Eucalyptus argophloia	*Eucalyptus pauciflora*
Eucalyptus benthamii	*Eucalyptus punctata*
Eucalyptus bicostata	*Eucalyptus robusta*
Eucalyptus botryoides	*Eucalyptus saligna*
Eucalyptus bridgesiana	***Eucalyptus scoparia***
Eucalyptus camaldulensis	*Eucalyptus sideroxylon*
Eucalyptus dorrigoensis	*Eucalyptus smithii*
Eucalyptus dunnii	***Eucalyptus tereticornis***
Eucalyptus globulus	***Eucalyptus urophylla***
Eucalyptus gomphocephala	***Eucalyptus viminalis***
Eucalyptus grandis	*E. camaldulensis x bicostata*
Eucalyptus largiflorens	*E. camaldulensis x largiflorens*
Eucalyptus leucoxylon	*E. grandis x camaldulensis*
Eucalyptus longirostrata	*E. grandis x nitens*
Eucalyptus macarthurii	*E. grandis x urophylla*
Eucalyptus maidenii	

Stephanie Sopow and Martin Bader



Printed by Scion Digital Print Centre, Rotorua (07 343 5711)