



## Urban Hazard Site Surveillance Project 2008-2009 Sycamore Lace Bug (SLB) Survey



### **Introduction**

Post-quarantine border surveillance of urban areas is important for the rapid detection of incursions of Exotic Plant Pests (EPP). Along with the increase of globalisation of trade, there is an increasing risk of exotic invertebrates and diseases being introduced into Australia and particularly New South Wales. Sydney is the major entry point for most passengers and freight entering Australia. Given the high flow of passengers and freight through Sydney, increased surveillance is justified in the Greater Sydney area.

Since 2006 NSW DPI has received federal funding from the Office of the Chief Plant Protection Officer, Canberra to undertake a range of Urban Hazard Site Surveillance programs within the Greater Sydney area. The primary objective of the national surveillance program for 2008-2009 is the collection of presence/absence data on pests already present in Australia as indicator species for environmental change. NSW DPI as part of this program has chosen to focus on the exotic urban forestry pest, *Corythucha ciliata*, Sycamore Lace Bug (SLB).

### **Background**

The Sycamore Lace Bug is a native of North America and is also found in Europe, Japan and South America. The pest was first discovered in the Sydney CBD in late 2006 and is now widespread throughout the Sydney Basin. Recent surveys in NSW (2008) have found it as far south as Gundagai and west to Orange.

The main host in Australia is the popular London Plane Tree, a hybrid between American and Oriental *Plantanus* spp. This host is an important landscape tree in urban environments because of its resistance to disease and its ability to grow rapidly in poor soils.

There are extensive plantings of London Plane across the Sydney Basin and in other urban and rural centres in NSW.

### **Survey methodology**

The survey method for SLB will be field based inspections for the pest on their hosts. The sample framework chosen for the survey is local council precincts. In NSW there are 43 metropolitan and 109 non-metropolitan councils. The initial phase of the survey will involve establishing a network of contacts within councils and this process will hopefully be facilitated by interaction with the Local Government Tree Resources Association which has members across NSW councils.

All councils agreeing to participate will be asked to nominate 2-5 London Plane tree sites within their jurisdiction (see attached London Plane tree register). These monitoring sites should be located within streetscapes, car parks and shopping malls rather than on private property.

NSWDPI staff will then visit each nominated site and sample individual trees within each site. These trees will be geo-coded and photographed so that they can be sampled a number of times.

SLB absence or presence will be recorded for each visit to each tree. In addition if SLB is present its abundance will be estimated using levels of observed damage on individual leaves. The correlation between SLB abundance and leaf damage will be developed as part of a collaborative study between City of Sydney Council (Karen Sweeney) and University of NSW (Gerry Cassis and Fiona Powell).

All data collected during this survey will be captured on a PDA running a Hazard Surveillance database developed by Rob Emery (DAFWA) as part of a Cooperative Research Centre for National Plant Biosecurity project.

The results of the survey will be routinely communicated to participating councils. Part of this communication will include spatial data in Keyhole Markup Language (KML) files which can be processed by Google Earth to give a visual depiction of the SLB site and the results of the survey.