

Adopt-a-Trap Survey target pests

The following are descriptions of the pests being surveyed for in this year's "Adopt – a – Trap" program. Further information about the Adopt a Trap program can be found at www.dpipwe.tas.gov.au/biosecurity-tasmania/plant-biosecurity/plant-pest-surveillance/adopt-a-trap-pest-survey

None of these pests have been previously detected in Tasmania.

Tomato potato psyllid (*Bactericera cockerelli*)



Tomato potato psyllid - nymphs, adults, and cast skins on tomato leaf
(Image: Whitney Cranshaw, Colorado State University, Bugwood.org)

- Adults are tiny cicada like insects 2-3mm in length, juveniles have a 'scale' like appearance and are 1–2mm in length.
- Present in Western Australia near Perth. Exotic to Tasmania and other states/territories.
- Attacks plants in the family Solanaceae and Convolvulaceae (e.g. Tomato, Potato, Capsicum, Convolvulus, Sweet Potato). They feed mostly on leaves and stems but the whole plant can be affected with serious reductions in yield and quality to affected crops.
- Vector for the disease pathogen *Candidatus Liberibacter solanacearum*, which causes the disease 'zebra chip' in potatoes. This disease is not present in Australia.

Citrus psyllids: Asian citrus psyllid (*Diaphorina citri*) and African citrus psyllid (*Trioza erytreae*)



African citrus psyllid damage (Peter Stephen, Citrus Research International, Bugwood.org)

- Adults are tiny cicada like insects 2-3mm in length, nymphs have a 'scale' like appearance and are 1–2mm in length.
- Exotic to Australia.
- These psyllids are significant pests of citrus and other plants in the family Rutaceae.
- Asian citrus psyllid and African citrus psyllid are vectors for the disease citrus greening / Huanglongbing, a serious disease of citrus which is not present in Australia.

Carrot psyllids (*Bactericera trigonica* and *Trioza apicalis*)

- Adults are tiny cicada like insects 2-3mm in length, nymphs have a 'scale' like appearance and are 1–2mm in length.
- Exotic to Australia.
- Significant pests of carrots in countries where they occur. Other plants in the family Apiaceae (eg parsley, celery) are also host to this psyllid and disease.
- Carrot psyllids are vectors of the pathogen *Candidatus Liberibacter solanacearum* which causes disease in carrots (this is a different haplotype to the pathogen that causes disease in potatoes and tomatoes). This disease is not present in Australia.

Glassy-winged sharpshooter (*Homalodisca vitripennis*)



Adult female glassy-winged sharpshooter (Image: Reyes Garcia III, USDA Agricultural Research Service, Bugwood.org)

- Adults are large brown/black leafhoppers with a creamy underside. They are 12-14mm long with a large flat head, prominent eyes and distinctive red veins on wings. Nymphs are similar to adults but smaller, greyer in colour and are wingless.
- Exotic to Australia.
- Attacks a wide range of plants with a host range of more than 200 plant species. It is often found feeding on woody plant tissues such as stems, trunks, branches and leaf petioles. It is a serious threat to Australia's viticulture, citrus, stonefruit, tree nut and nursery production industries.
- Vector for the disease pathogen *Xylella fastidiosa* which causes a number of serious diseases depending on the host species, including: Pierce's disease, almond leaf scorch, bacterial leaf scorch, citrus variegated chlorosis, olive quick decline and olive leaf scorch. This disease is not present in Australia.

Exotic *Liriomyza* leafminers



Image1. Serpentine leafminer damage (Image: Central Science Laboratory, Harpenden, British Crown, Bugwood.org)

Image2. Adult serpentine leafminer (Image: Central Science Laboratory, Harpenden, British Crown, Bugwood.org)

- Includes tomato leaf miner (*Liriomyza bryoniae*), chickpea leaf miner (*Liriomyza cicerina*), serpentine leaf miner (*Liriomyza huidobrensis*), vegetable leaf miner (*Liriomyza sativae*) and American serpentine leaf miner (*Liriomyza trifolii*).
- *Liriomyza* leafminers are tiny insects whose larvae cause damage by tunnelling through the inside of leaves leaving a meandering track. Adults are tiny flies just 1-2 mm long. Larvae are tiny maggots that live within the leaf mine.
- All species listed above are exotic to Australia. The cabbage leafminer (*Liriomyza brassicae*) and beet leafminer (*Liriomyza chenopodii*) are resident in Tasmania.
- The listed exotic *Liriomyza* leafminers have a very wide host range and threaten Australia's vegetable production industries.

FOR FURTHER INFORMATION:

Veronica Hayes Surveillance Coordinator (Plant Biosecurity)

Plant Biosecurity and Diagnostics Branch

M: +61 (0) 448 366 101

PlantSurvey@dpiw.tas.gov.au