NEW KIDS ON THE BLOCK: EMERGING PESTS IN OREGON

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There are several emerging pests which currently, or in the future, may impact Oregon crops, landscapes, and forests. Whiteflies, lace bugs, thrips, sawflies, spider mites, scarab beetles, and moths are on the list of introduced arthropods that are newly detected or developing new host associations in Oregon in the last few years. While some of these pests have potential to be quite disruptive, the impact of others may be minimized due to eradication programs, classical biological control, or even escape notice due to relative obscurity.

Whitefly populations noticeably increased in recent years with the detection of three new whitefly species in Oregon. Detections of ash whitefly, *Siphoninus phillyreae* (Haliday), cabbage whitefly, *Aleyrodes proletella* (Linnaeus), and banded whitefly, *Trialeurodes abutilonea* (Haldeman), focused attention to both the potential of whiteflies for crop damage (e.g. cabbage whitefly on kale) but also the success of classical biological control programs to diminish these exotic populations such as the establishment of the parasitic wasps, *Encarsia inaron* (Walker) and *Clitostethus arcuatus* (Rossi) ladybeetles for ash whitefly. There is limited information on the extent and damage so far from banded whitefly.

Azalea lace bug, *Stephanitis pyrioides* (Scott), was confirmed in 2009 in Oregon. Azalea lace bug distribution has expanded and there are widespread reports of damage, sometimes severe, to azaleas and rhododendrons in the North Willamette Valley. Soon after establishment, it became clear that *S. pyrioides*, was damaging other important plant genera, including evergreen huckleberries, *Vaccinium ovatum*, and salal, *Gautheria shallon*. The known host plants of this pest have expanded by over 20 plant species and three new plant families based on natural observations and plant trials here in Oregon (LaBonte and Valente, 2014). Another new lace bug, tentatively identified as oak lace bug, *Corythucha arcuata* (Say), was detected from a public park in Portland on *Quercus garryana*. We still await official confirmation by USDA for this species but its appearance and key characters are consistent with *C. arcuata*.

Greenhouse thrips, *Heliothrips haemerroidalis* (Bouché), were detected feeding on the native plant salal, in natural landscapes on the central and southern Oregon Coast and inland along a highway. The initial concern was that azalea lace bug was causing the damage on salal but direct observation and sampling determined it was *H. haemerroidalis*. Though there have been prior reports of greenhouse thrips damage on salal, and on *Viburnum* plants near Seattle, the outbreak in Oregon is more extensive.

Two new sawflies have been identified in Oregon. European pine sawfly, *Neodiprion sertifer* (Geoffroy), was detected from a landscape in Albany, Oregon, and azalea sawfly, *Nematus lipovski*, was confirmed from several locations including the Portland metro, a rest stop on Highway 26 toward the coast, and Corvallis. The azalea sawfly may have been around for some time, based on anecdotal reports, but has only been officially determined present in Oregon in 2016. Looney and associates (Looney et al. 2016) document *N. lipovski* present in WA in 1996 and *N. sertifer* in 2008.

Clover mites, *Bryobia praetiosa* (Koch), were observed in a Portland metro landscape feeding on several plants including *Arum italicum,* violas, and *Crocosmia* sp. These spider mites are plant feeders but also can be structural invaders. There was no official sample submitted with the observation but images indicate a strong likelihood of its presence in the state.

Japanese beetles, *Popillia japonica* (Newman), lead the exotic beetles of concern found due to high recent catch numbers in SW Portland, but an additional catch of concern is the detection of European chafer, *Amphimallon majalis* (Razoumowsky), in a Japanese beetle trap in the Portland metro area. European chafer is a damaging beetle pest of turf and other cereal and grass plants. Information from a Washington State University Extension Fact Sheet reports they have also been found feeding on the roots of broadleaf plants and conifers (Murray et al 2012).

While both Asian and European gypsy moths, *Lymantria* spp., have been captured in Portland, OR and Vancouver, WA traps, and have captured the headlines, rose stem girdler, *Agrilus cuprescens* (Ménétriés), has also been captured in the Portland area (as well as east of the cascades). This beetle borer has the potential to cause damage on important plants in Oregon including caneberries, currants, gooseberries, and its namesake, roses. A buprestid, it feeds in the cambium and girdles the plants.

New web pages at the PNW Nursery IPM website have been developed for some of these emerging new pests and can be found in the resource list below.

Selected References/Resources:

LaBonte, James R. and Thomas E. Valente. 2014 Azalea lace bug, *Stephanitis pyrrioides* (Scott), A New Pest for the Pacific Northwest. 2014 Annual Meeting of the Entomology Society of America. Portland, Oregon. Poster

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Murray, T, Stahnke, G, and E. LaGasa. 2012. European chafer. Washington State University Extension Fact Sheet. FS078E. http://extension.wsu.edu/wallawalla/wp-content/uploads/sites/26/2013/12/European-Chafer.pdf

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Rosetta, Robin. 2016. Ash whitefly. Pacific Northwest Nursery IPM. http://oregonstate.edu/dept/nurspest/Ash_whitefly.html

Rosetta, Robin. 2016. Azalea sawfly Pacific Northwest Nursery IPM. http://oregonstate.edu/dept/nurspest/azalea_sawfly.html

Rosetta, Robin. 2016. Bryobia mites. Pacific Northwest Nursery IPM. http://oregonstate.edu/dept/nurspest/Bryobia.html

Rosetta, Robin. 2016. Cabbage whitefly gallery. Pacific Northwest Nursery IPM. http://oregonstate.edu/dept/nurspest/cabbage_whitefly.html