

# New York State NEEDS YOUR HELP! INVASIVE SPECIES EARLY DETECTION



**NYS Department of Agriculture and Markets** – The Division of Plant Industry participates in the Cooperative Agricultural Pest Survey (CAPS). The primary objective of CAPS is the early detection of exotic plant pests. CAPS inspections are required for out-of-state movement of NYS plants and plant products. We are currently surveying for the following pests of ornamental plants, agriculture crops and woodland species. If you have seen any of these pests in your area or have questions, contact our toll free hotline at 1-800-554-4501, Ext. 72087.



**Asian Longhorned Beetle (ALB) (*Anoplophora glabripennis*):** Wood boring beetles native to China, they attack a wide variety of hardwood species including maples, elms, poplars and willows. Infestations have been found in NY, IL, NJ and Ontario, Canada. Adult beetles are large, shiny black with white spots and have long white and black antenna. Signs of an infestation include crown dieback, sawdust frass in strands, large exit holes, and tree mortality. <http://counties.cce.cornell.edu/suffolk/bugs/>



**Emerald Ash Borer (EAB) (*Agrilus planipennis*):** An exotic pest of ash trees in the landscape, nurseries and wooded areas; recently detected in MI, OH, IN, IL and Ontario, Canada. Adult beetles are dark metallic green in color, 1/2" in length, and present from mid-May until late July. Larvae are creamy white in color and are found under the bark. Signs of an infection include tree canopy dieback, yellowing or browning of leaves and main trunk sprouting. Sentinel trap trees are being used in 2006 for early detection across NYS. [http://www.michigan.gov/mda/0,1607,7-125-1568\\_2390\\_18298-65300-753--,00.html](http://www.michigan.gov/mda/0,1607,7-125-1568_2390_18298-65300-753--,00.html)



**Sirex Wood Wasp (SWW) (*Sirex noctilio*):** is native of Europe, Asia, and northern Africa and has successfully established in pine plantations in South Africa, South America, Australia and New Zealand where it causes significant tree mortality. It is attracted to trees under stress (from drought, fire, and other debilitating conditions). These trees are often used to make solid wood packing material (SWPM). Since the lifecycle can take a year or more, the insects are often transported in pallets or other SWPM. NY-CAPS detected SWW in twenty-five counties and Canada has confirmed in Ontario and negative in Quebec. [http://www.aphis.usda.gov/ppq/ep/emerging\\_pests/sirexnoctilio.html](http://www.aphis.usda.gov/ppq/ep/emerging_pests/sirexnoctilio.html)



**Hemlock Woolly Adelgid (HWA) (*Adelges tsugae*):** An insect native to east Asia, infesting hemlock trees from New England to the Carolinas. The presence of white cottony/waxy tufts that cover their bodies can be found on the bark, foliage and twigs of hemlock trees and it is a sure sign of HWA infestation. Efforts to eradicate HWA in Erie and Monroe Counties were made in 2003 and 2005.

<http://counties.cce.cornell.edu/Suffolk/HortFactSheets/factsheets/Hemlock%20Woolly%20Adelgid.pdf>



**Viburnum Leaf Beetle (VLB) (*Pyrrhalta viburni*):** Native to most areas of Europe, this beetle was first discovered in Ontario, Canada in 1947 and in NY in 1996. Skeletonized leaves in the spring (May-June), heavily chewed leaves in the summer (July-September), and terminal twigs with characteristic egg "caps" arranged in straight rows, seen throughout the summer months, are typical of a viburnum leaf beetle infestation. Host plants include many *Viburnum* species (e.g., arrowwood, cranberry bush).

<http://www.entomology.cornell.edu/Extension/DiagnosticLab/IDLFS/VLBfactsheet2003.html>



**Ramorum Blight (PRB) (*Phytophthora ramorum*):** is a newly described species of fungal pathogen from the Peronosporales family, exotic to the United States until June 2000. RB was found infecting *Rhododendron* spp. and *Viburnum* spp. in Germany and the Netherlands in 1993. Currently, distribution in the United States is limited to forests in California and nurseries in California, Oregon, Washington, and British Columbia. A federal quarantine is in place to prevent the movement of infected nursery stock and annual national surveys continue.

[http://counties.cce.cornell.edu/Wyoming/agriculture/resources/ipd/oak\\_disorders.htm](http://counties.cce.cornell.edu/Wyoming/agriculture/resources/ipd/oak_disorders.htm)



**Giant Hogweed (*Heracleum mantegazzianum*):** Native to the Caucasus mountains and southwestern Asia, giant hogweed is currently on the federal noxious weed list. Hogweed has been reported from parts of NY, OH, PA, MD, OR, WA, MI, VA, VT, NH, and ME. A member of the parsley family, its most impressive characteristic is its massive size, reaching a height of 10 to 15 feet when in flower with hollow stems 2-4" in diameter with dark reddish-purple spots and bristles. Considered a public hazard, the plants sap can cause a skin reaction known as photo dermatitis when the sap makes contact with the skin and exposed to sunlight.

[http://counties.cce.cornell.edu/allegany\\_cattaraugus/pdf/](http://counties.cce.cornell.edu/allegany_cattaraugus/pdf/)



**Chrysanthemum White Rust (CWR) (*Puccinia horiana*):** A destructive disease native to China and Japan. Symptoms include light green and yellow spots on the upper surface of infected leaves. Shipments of chrysanthemum cut flowers from the Netherlands continue to be destroyed due to CWR detection. Aggressive eradication programs in 2002 - 05 have successfully prevented establishment of CWR in New York and the northeast. <http://www.greenhouse.cornell.edu/pestsdis/gallery/Chryswhiterust.html>



**Pink Hibiscus Mealybug (PHM) (*Maconellicoccus hirsutus*):** a sap-sucking tropical insect, which is typically observed as clusters of small soft-bodied insects in cotton-like masses covering buds, stems, fruit and roots, and in extreme cases the entire plant. PHM eggs over winter in bark crevices, leaf scars, under bark, in the soil, tree boles, inside fruit clusters, and inside crumpled leaf clusters. The PHM has a life cycle of 24 to 30 days. The female mealybug produces more than ten (10) generations per year in colonies of 500 eggs or more. It feeds on the sap of the plant and releases toxic substances causing injury and death to the plant. It is spread by wind, ants, tropical storms, and movement of infested cut flowers and tropical nursery stock. <http://creatures.ifas.ufl.edu/orn/mealybug/mealybug.htm>



**Winter Moth (WMM) (*Operophtera brumata*):** a pest in Europe that was introduced to Nova Scotia during the 1950's. It has since established in the Pacific North West of the United States, western and eastern Canada, and since 2003 Massachusetts and Rhode Island. Early instars feed on developing buds, but later stages consume foliage. It is important because of a broad host range, including a variety of fruit crops (including apples, blueberries, and cherries), trees (including maple, oak, ash, birch, elm, linden, and crabapples), and ornamental plants (including Viburnum, roses, and many other perennials). [http://www.umassgreeninfo.org/fact\\_sheets/defoliators/wm\\_id\\_man.html](http://www.umassgreeninfo.org/fact_sheets/defoliators/wm_id_man.html)



**European Crane Fly (ECF) (*Tipula paludosa* (Meigen) & *T. oleracea* (Linnaeus):** Adults emerge in late summer and early fall. As adults emerge, the leathery, shiny pupal cases (leatherjackets) are an indicator of where crane fly larvae were living and where the next eggs are most likely to hatch. The adults mate almost immediately after they emerge. The females lay most of their eggs before they make their first flights. <http://www.nysipm.cornell.edu/factsheets/turfgrass/ecf.pdf>



**Swede Midge (SMM) (*Contarinia nasturtii*):** Adult swede midge emerge from the soil in the spring. After mating, females lay clusters of eggs on growing points of crucifer plants. After hatching, larvae feed gregariously in protected areas of the plant. Mature larvae “jump” to the ground and burrow for pupation. Swede midge is found throughout Canada, and Europe, from Mediterranean countries North into Scandinavia, and was detected in six New York counties in 2005 and seven more in 2006. <http://www.nysipm.cornell.edu/factsheets/vegetables/cruc/>



**Bacterial Wilt (SBW) (*Ralstonia solanacearum* race 3 biovar 2):** A bacterial pathogen that causes a wilt disease in several important ornamental and agricultural crops. *Ralstonia* is present in Europe, Asia, South and Central America and Australia. This pathogen was detected and eradicated in NH and VT greenhouses that received imported geranium plants in 2003 from Kenya. In early 2004, three cultivars of Guatemalan geraniums were detected in Eden, New York and subsequently eradicated. It can be transmitted through soil, contaminated irrigation water, equipment or personnel. No detection of *Ralstonia* occurred during 2005 and 2006 geranium surveys. <http://www.plantclinic.cornell.edu/FactSheets/bactwiltccbits/bactwiltccbits.htm>



**Imported Fire Ant (IFA) (*Solenopsis invicta*):** have become established across the South and in parts of California and other Western States. These pests pose serious threats to people, small animals, crops, and agricultural equipment. In the State of Texas alone, imported fire ants are estimated as causing about \$300 million worth of damage in 2005. This invasive pest can be relocated on nursery stock, honeybee hives/pallets, and package mulch materials. [http://creatures.ifas.ufl.edu/urban/ants/red\\_imported\\_fire\\_ant.htm](http://creatures.ifas.ufl.edu/urban/ants/red_imported_fire_ant.htm)



**Fruit Tree Tortrix Moth (FTTM) (*Archips podana*):** a fruit pest in Europe, Asia Minor, Japan and northern Asia. Large caterpillars feed on leaves and fruit of mainly apple, but will feed on pear, plum, cherry, apricot, walnut, blackberry, raspberry, hop, and rose. Adults emerge in mid-June to mid-August and lay scale-like egg clusters of 50-100 on upper surfaces of host leaves. Once hatched, the larvae will disperse and feed singly under a silk web on the underside midrib. A second generation will emerge in September and over-winter as young larvae under bud scales or a leaf firmly stuck to the branch.

[http://whatcom.wsu.edu/pestsurvey/podana/ArchipsPodanaSurvey\\_files/frame.htm](http://whatcom.wsu.edu/pestsurvey/podana/ArchipsPodanaSurvey_files/frame.htm)