First Detector Network News

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Recent reports on the spread of emerald ash borer

Stephanie D. Stocks, Department of Entomology and Nematology, University of Florida

It seems that emerald ash borer (*Agrilus planipennis*) has been on the move recently.

In the October edition of the NPDN First Detector Newsletter, we reported that counties had been added to the regulated list for Kentucky, Kansas, Missouri, and North Carolina.

Since then, USDA APHIS has greatly expanded regulated areas due to additional detections of this invasive pest. Twenty four counties in Iowa are now within the regulated area: Buchanan, Cedar, Clayton, Clinton, Davis, Delaware, Des Moines, Dubuque, Fayette, Henry, Jackson, Jefferson, Johnson, Jones, Keokuk, Lee, Linn, Louisa, Muscatine, Scott, Van Buren, Wapello, Washington, and Winneshiek.

In addition, Fairfield, Hartford, and Litchfield Counties were added to the regulated area in Connecticut, Warren County was added in North Carolina, and the entire state of Missouri has been included in the regulated area.

Georgia is the latest state to be added to the distribution with the detection of this pest in DeKalb and Fulton Counties which brings the state count up to twenty two (Michigan, Colorado, Connecticut, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New York, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and Wisconsin).

With the help of our First Detectors across the country working with state and federal agencies to report suspect sightings, we have the best chance of halting the spread of this pest to other areas. So please, keep an eye out for this pest and report anything suspicious.

In addition, with any luck, the recent extreme cold in areas where EAB has already been detected may help in our efforts to slow the spread of this pest.

Images courtesy of David Cappaert, Michigan State University, Bugwood.org, #1241001 (adult) and Pennsylvania Department of Conservation and Natural Resources - Forestry Archive, Bugwood.org, #5016056.

In This Edition:

New First Detector site launched for Florida

Stephanie D. Stocks, Department of Entomology and Nematology, University of Florida

Through recent Farm Bill funding, collaborators from the U.S. Department of Agriculture Animal and Plant Health Inspection Service (USDA APHIS), the Cooperative Agricultural Pest Survey Program (CAPS), University of Florida Institute of Food and Agricultural Services (UF IFAS), the Florida Department of Agriculture and Consumer Services Division of Plant Industry (FDACS DPI), the National Plant Diagnostic Network (NPDN), Protect U.S., and the Sentinel Plant Network (SPN) are working together to deliver first detector workshops on invasive pests across the high impact state of Florida as well as California and New York.

The workshops target a variety of audiences including master gardeners, state parks, crop consultants and other plant industry professionals, botanical gardens, and small farm producers.

Workshops focus on the roles these different agencies play in the detection, eradication, and management of invasive species as well as encouraging the utilization of the state's NPDN diagnostic labs in the detection of new suspect invasive pests and diseases.

Topics chosen for the workshops include pests that are here, but are limited in distribution as well as pests that are not here yet, but are on the CAPS prioritized pest list. With additional eyes in the field, in the parks, and in the botanical gardens, participants can help state and federal agencies detect potential pests early on and with early detection, the chances of a successful eradication effort is greatly improved.

The educational material developed for the workshops held in Florida have been made available on a new website, www.flfirstdetector.org.

The material developed includes short scripted presentations (about 15 minutes) for educators to use on a variety of topics such as European pepper moth, cactus moth, brown marmorated stink bug, kudzu bug, *Tuta absoluta*, and giant African land snail.

Also developed as part of this project, is a series of online training modules based on the scripted presentations for target groups to access. There is no charge to access any of this educational material.

Please check out the new website and keep an eye out for additional First Detector training opportunities in your state.

About NPDN:

The NPDN is a network of state and federal officials, land grant universities, and First Detectors whose mission is to detect, diagnose, and disseminate information regarding high consequence plant disease or pests. The NPDN was established in 2002 in response to a need for greater agricultural security.

Over the years, the NPDN has grown into an internationally respected consortium of plant diagnostic laboratories.

The five regions that make up the NPDN are the: NEPDN, SPDN, NCPDN, GPDN, and WPDN.

Please feel free to browse the links to the various regions to get a better idea of what is going on in your part of the country.

NPDN

Coconut rhinoceros beetle detected in Hawaii

Stephanie D. Stocks, Department of Entomology and Nematology, University of Florida

In early January, USDA ARS SEL confirmed a new state record for Hawaii in the detection of coconut rhinoceros beetle (*Oryctes rhinoceros*) in a trap at the Joint Base Pearl Harbor-Hickam in Honolulu, Oahu. Since then a breeding population of this palm pest has been found (in a compost pile at a golf course on base) and is under eradication.

The distribution of this pest includes parts of Africa, Asia, the Middle East, and the Pacific Islands. This scarab beetle is mainly a pest of coconut and oil palms; however, several other hosts have been recorded such as many other palm species (date palms, fishtail palms, and royal palms) as well as breadfruit, mango, agave and sugarcane (for a more complete list – click here). It can also feed on detritus which was evident from the detection of this pest in a compost pile.

Mature larvae range in size from 60 to 105mm (2.5 to 4 inches). They look like the typical scarab grub, being white with a dark head capsule and C-shaped. Adults range in size from 30 to 57mm (1.5 to 2.25 inches) and are black in color with fuzzy, red venter. The life cycle can be completed in 4 to 9 months, but in favorable conditions up to 3 generations can occur in a year.

Damage is caused by the adult stage of this pest as they bore into the healthy crowns of palms where they feed on the juice produced by the host. This feeding damages the inflorescences and fronds (causing V-shaped cuts or holes in the midrib) resulting in a delay in fruit production. In young trees (1 to 3 years) severe malformation and even death can occur. Older palms better tolerate the damage caused by this beetle.

There is concern that this pest can be problematic in areas where sugarcane is grown (in the southern U.S.) as well as in areas where palm trees are grown commercially and also make up a large percentage of the native landscape (such as Florida, California, and Arizona).

First Detectors are asked to keep an eye out for this potential pest and to report any suspect sightings to their local county agent or state agency.

Image courtesy of Pest and Diseases Image Library, Bugwood.org, #5488587.

New Lucid tools released: LepIntercept and LongicornID (edition 2)

Stephanie D. Stocks, Department of Entomology and Nematology, University of Florida

USDA Animal and Plant Health Inspection Service's Identification Technology Program (ITP) recently released the second edition of Longicorn ID: Tool for Diagnosing Cerambycoid Families, Subfamilies, and Tribes and LepIntercept: An identification resource for intercepted Lepidoptera larvae.

The second edition of Longicorn ID: Tool for Diagnosing Cerambycoid Families, Subfamilies, and Tribes includes a lucid key and fact sheets for the 82 tribes of the subfamily Lamiinae (Cerambycidae) as well as dorsal habitus photographs. Due to the large size of this group of pests, the IDtool will be released in phases with the subfamilies Lepturinae and Cerambycinae due out in early 2015. For more information, click here.

LepIntercept: An identification resource for intercepted Lepidoptera larvae is designed to be used by identifiers at ports of entry in the U.S. Detailed fact sheets include information on: taxonomy, host/origin, recorded distribution, and larval diagnosis and identification. For more information, click here.

Cucumber green mottle mosaic virus and sweet orange scab detected in California

Stephanie D. Stocks, Department of Entomology and Nematology, University of Florida

Cucumber green mottle mosaic virus is a seed-borne virus that is known to affect cucurbitaceous crops in Europe and Asia.

It was recently detected in a melon seed field in Yolo and Sutter Counties. USDA APHIS PPQ is working with state and local agencies to determine the extent of the infestation and develop an eradication program.

This virus is a member of the genus *Tobamovirus* which are known for their long term survivability and includes the Tobacco mosaic virus. Transmission of this virus can occur through contaminated irrigation water and soil as well as through infected seed and pollen.

Hosts affected by this virus includes *Cucumis melo* (cantaloupe), *Cucumis sativus* (cucumber), and *Citrullus lanatus* (watermelon) as well as weeds such as *Amaranthus blitoides*, *Amaranthus retroflexus*, *Heliotropium europaeum*, *Portulaca oleracea* and *Solanum nigrum*.

Symptoms of this virus include light yellow green spots, vein clearing, and deformation in young leaves and chlorotic mottling, stunted growth, bleaching, and necrosis in mature leaves.

Sweet Orange Scab (*Elsinoë australis*) was also detected recently in California. This fungal disease was detected on lemons in Imperial County from two separate commercial groves. It was also found on grapefruit from a residential area in Los Angeles County.

Though this disease causes scab-like lesions on fruit, it is superficial damage only, which means that the fruit can still be used in other commercial productions.

So far, sweet orange scab is found in Texas, Florida, Louisiana, Mississippi, and Arizona.

Should you suspect that you have either one of these diseases, please contact your local county agent or state agency and report it.

NAPPO Phytosanitary Alert System

The North American Plant Protection Organization's (NAPPO) Phytosanitary Alert System is featured in this newsletter every month. Remember that this a great resource to keep up to date on the latest pest detections and quarantine information. The website features both official reports and unofficial alerts of pests for Canada, Mexico, and the United States.

They also have free subscriptions that are available for periodic email notifications of new postings on their website. Be sure to check it out regularly!

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Editors: Carrie L. Harmon and Stephanie D. Stocks.

To submit news items in future editions of the newsletter, contact: clharmon@ufl.edu or sstocks@ufl.edu.

You can include a short descriptive paragraph, links, and related images or documents – don't forget to include author and image credits though.

SPDN

Upcoming Meetings:

- If you would like your meeting listed in the newsletter, let us know.

First Detector Training Opportunities:

- March 5, 2014 - Forest Pest First Detectors will be held in Maplewood, MN - click here for more information.
- March 7, 2014 - Illinois First-Detector Tree-Pest Training Program will be held in Mt. Vernon, IL - click here for more information.
- March 11, 2014 - Sentinel Plant Network First Detector Training will be held in Reiman Gardens in Ames, IA - click here for more information.
- March 11, 2014 - Recruiting an Army of Eyes: Basic First Detector Training for Lucas County Master Gardener Volunteers will be held in Toledo, OH - Click here for more information.
- March 12, 2014 - Forest Pest First Detectors will be held in Grand Marais, MN - click here for more information.
- March 12, 2014 - Illinois First Detector Workshop will be held in Decatur, IL - click here for more information.
- March 14, 2014 - Forest Pest First Detectors will be held in Bemidji, MN - click here for more information.
- March 21, 2014 - First Detector Training for Hernando County Master Gardeners will be held in Brooksville, FL as part of the Florida First Detector Project mentioned in this newsletter - contact Bill Lester for more information.
- March 27, 2014 - Illinois First Detector Workshop will be held in Joliet, IL - click here for more information.
- April 23, 2014 - First Detector Training will be held in Key West, FL as part of the Florida First Detector Project mentioned in this newsletter - contact Kim Gabel for more information.
- April 24, 2014 - First Detector Training will be held in Key Largo, FL as part of the Florida First Detector Project mentioned in this newsletter - contact Kim Gabel for more information.
- April 25, 2014 - Forest Pest First Detectors will be held in Rochester, MN - click here for more information.
- If you are hosting a First Detector Training Session, please post these on the NPDN First Detector Training website so that they can be listed here.

Employment Opportunities:

- Please click here for more information.

Do you tweet?

- Click here for updates.