North Central IPM Center Update

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Lynnae Jess, Laura Iles, Ethan Stoetzer

North Central IPM Center

NC IPM Center Working Groups

- Agriculture & Wildlife Coexistence – Erin Lizotte, Michigan State University
- Great Lakes Hop - Erin Lizotte, Michigan State University
- Great Lakes Urban IPM – Jacqueline Kowalski, The Ohio State University
- Great Lakes Vegetable – Ben Phillips, Michigan State University
- IPM4Bees – Randall Cass, Iowa State University
- Midwest Fruit – Lina Rodriguez Salamanca, Iowa State University
- Midwest Grows Green Lawns – Ryan Anderson, IPM Institute of North America

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NC IPM Center Working Groups, cont.

- Multi-State Field Crops Extension – Adam Sisson, Iowa State University
- Organic and IPM – William Fulwider, IPM Institute of North America
- Public Gardens as Sentinels Against Invasive Plants – Kurt Dreisilker, The Morton Arboretum
- Public Tick IPM – Maria Weber, IPM Institute of North American
- Pulse Crops – Julie Pasche, North Dakota State University
- Sunflower Pathology – Sam Markell, North Dakota State University

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NC IPM Center Working Groups, still active

- Extension Entomologists
- Rights-of-Way as Habitat
- School IPM
- Great Lakes Fruit Workers
- Food Narrative

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Herbicide-Drift Risk Management Working Group

- Led by Doug Doohan (OSU), Bill Johnson and Bryan Young (both from Purdue University)
- Organized around the Dicamba drift issues
- Develop and disseminate new resources for row-crop farmers and for specialty crop growers on how to assess and manage drift-damage risk.
- Include weed specialists, agronomists and horticultural crop specialists

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Pest Alerts

- Single page handouts on pest insects, diseases, weeds.
- Production and dissemination of invasive species Pest Alerts an activity that the NCIPMC does for all the regional centers
- 33 Pest Alerts were developed between 2002 and 2017
- Can be produced quickly when there is new invasive threat
- Often linked to by NPDN, USDA websites

National Pest Alert

Brown Marmorated Stink Bug

The brown marmorated stink bug (BMSB), *Halyomorpha halys* (Stål) (Hemiptera: Pentatomidae), is an exotic insect new to North America. Large numbers of adult BMSB were first identified in fall 2001 in Allentown, PA; however, undetermined sightings likely date as far back as 1996. This Asian native, sometimes called the yellow-brown or East Asian stink bug, has since spread across much of the U.S. BMSB is a known pest of fruit trees and legumes in its native China, South Korea, Japan, and Taiwan.

Host Range

BMSB is considered polyphagous, which means it has been recorded feeding on a wide range of host plants. Commonly damaged plants include ornamentals (catalpa, eastern redbud, southern magnolia, crab apple, and many others), specialty crops (apple, peach, apricot, cherry, pear, almond, pepper, tomato, eggplant and more), and field crops (corn, soybean, sunflower, etc.).

Life History and Identification

BMSB is a shield shaped stink bug ranging in length from 14 to 17 mm and is dark mottled brown. The last two antennal segments have alternating broad light and dark bands. The exposed abdominal edges also have alternating dark and light banding. From June to August, females lay clusters of 20–30 light green, barrel-shaped eggs on the undersides of leaves. Newly hatched nymphs are yellowish mottled with black and red. Older nymphs are darker with banded legs and antenna, like the adults. Adult BMSB are most similar in appearance to *Brochymena*, a very common group of native grey-brown stink bugs. However, *Brochymena* spp. lack the alternating light and dark antennal markings. *Brochymena* spp. also have distinct teeth on the lateral edges of the pronotum, whereas the lateral pronotal edges of BMSB are smooth.

Adult brown marmorated stink bug on fruit

Brown marmorated stink bug nymph

Damage

Household Pest

BMSB enter buildings in the fall when they are seeking sheltered locations where they can spend the winter in hibernation in attics and wall voids. Typical entry points include cracks and gaps around windows and doors, between the foundation and siding, between the siding and soffit, around a chimney, etc. BMSB secrete aggregation pheromones which attract more individuals which can to large numbers of BMSB in homes and buildings. Because they overwinter indoors, one of the ways BMSB spreads is in mailed packages and luggage, as well as, vehicles and motor homes.

Prevent entry of BMSB by repairing screens, caulking cracks, removing window AC units, etc. Insecticides applied outside of homes and buildings before the bugs enter can also help reduce the number coming indoors. Once indoors, vacuuming and other methods of physical removal are the best management options.

When BMSB enters a new area it is household pest at first and it is several years before populations become large enough that plant damage begins to occur.

Northeastern IPM Center

USDA

APHIS

North Central IPM Center

Revitalization

- Web-version that is ADA compliant
- Archived Pest Alerts that were no longer needed.
- Created Revision Guidelines
  - Copyright statement for authors
  - Content review every 2 years
- Review and update of active Pest Alerts will be completed by end of this year
- Tracking of pdf downloads and print orders
  - 7,000 pdf downloads since February
  - 700 printed copies
- New Pest Alerts ‘in the works’ include boxwood blight, jumping worms, and Asian Longhorned tick


National Pest Alert

Asian Longhorned Beetle

Anoplophora glabripennis

Origin and Distribution

The Asian longhorned beetle (ALB), native to China and Korea, poses a serious threat to U.S. urban and forest trees. ALB was first discovered in the United States in 1996 on Long Island, New York. There have been five infestation of ALB in the U.S. with three infestations still ongoing and two of the infestations successful eradicated (see timeline at right for locations of the infestations). As ALB can be transported in untreated wood products such as wood packing materials or firewood, it is vital that we all be aware of this insect and immediately report anything suspicious to local authorities (land-grant university, department of natural resources, USDA, etc).

Description

and-white banded antennae are usually longer than its body. The elongated feet are black with a whitish-blue upper surface. Adults can be seen from late spring through fall depending on climate and geographical location. Although its size and large mandibles may cause it to appear threatening, the beetle is harmless to humans and pets. Adult females use their mandibles to chew a pit and then deposit an egg into it. Each female lives several weeks and will lay up to 90 eggs. The larva tunnels under the bark, eventually tunneling deep into the tree. Larval tunneling produces frass that consists of feces and wood fibers resembling sawdust. The large, light cream-colored larva that lives entirely within the wood of trees is the most damaging stage as they consume living wood disrupting the flow of nutrients within the tree. Typically, the life cycle of the ALB is completed in

Adult Asian longhorned beetle.

YEAR	LOCATION	CURRENT STATUS
1996	Long Island, NY	ongoing
1998	Chicago, IL	eradicated in 2008
2002	Jersey City, NJ	eradicated in 2013

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Web Communications

The Central Issue: Monthly Newsletter

- Aggregates current issues in the North Central region
- Promotes grant program initiatives and their events
- Promotes Center news and initiatives
- Over 750 subscribers
  - Open Rate: 23.2%
  - Industry average *19.5 %*
  - Click rate: 4.0 %
  - Industry average: *2.4 %*

NCIPMC.org

- Website is complete
- Analytics and Search Console set up for review

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