

July has seen some interesting environmental conditions ranging from really poor air quality to drought to flooding! We now urge readers to look up water quality conditions prior to visiting a beach this summer as beaches may have high levels of bacterial contamination or large algal blooms (which can have toxins that sicken pets and humans). Please visit the website listed in the white box for water quality and beach closure information!

## The Curious Case of Honey In Areas With Spotted Lanternfly

Recently the JLW Cisma gave a talk about spotted lanternfly (*Lycorma delicatula*—SLF), a planthopper invasive insect recently discovered in Michigan. Originally from China (and parts of other nearby countries), this insect's preferred host tree is tree of heaven (itself an invasive tree) and has the potential to damage important crops. SLF has a piercing-sucking mouth part that allows them to suck the sap out of trees. If a large infestation is present, overtime, this can weaken the tree as it disrupts nutrient flow. This insect also secretes a sugary waste product called "honey dew" which can attract sooty mold and other insects. It is this "honey dew" that will play a part in this story. In order to make honey, bees need to collect nectar from the flower and store it in a special "honey stomach" which contains enzymes that make it sticky, and bring it back to the hive. They throw up the nectar-enzyme mixture to other bees who process it by adding more enzymes, and fan it with their wings to reduce the moisture before sealing it up with wax for later use.



A)



B)



C)

Honey bees (A) have been seen foraging spotted lanternfly (B) honey dew, the addition to honey has resulted in the altered look and taste of fall produced honey (C).

One honey producer noticed his fall honey looked darker and had a smokier taste. They sent the honey away for testing and found the presence of aianthone (compound found in tree of heaven) and SLF DNA. Researchers theorized that when the nectar supply is low in the fall, bees will look for easy sources of "nectar". In some areas of Pennsylvania the SLF infestation was so large that honey dew was dripping off of trees, and bees were seen foraging on SLF honey dew. While the honey is safe to eat, not everyone is a fan of the taste (I personally liked it). If producers want to avoid contamination, they will have to pull their honey sooner and check hives more often, which adds to production costs. Increased pesticide use may also drift to areas where bees forage and harm them. There is also concern honey dew contamination may decrease the value and quality of the honey. One upside is that honey dew seems to be a additional source of nectar that will help bees over winter.

## Upcoming Events

**July 20th**—JLW Cisma. Hemlock woolly adelgid informational seminar. Speaker Rob Miller from MDARD, 2:00pm to 3:00pm. Registration required: [tinyurl.com/JLWHWA](http://tinyurl.com/JLWHWA)

**August 10th**—Not MI Species: Why, Oh Why Won't They Clean, Drain and Dry? Understanding Impediments to Boater and Angler Behavior Change, 9:00am to 10:00am. Registration required: [us06web.zoom.us/webinar/register/WN\\_WgyI6DiiQOCXURhDtwyttg#/registration](https://us06web.zoom.us/webinar/register/WN_WgyI6DiiQOCXURhDtwyttg#/registration)

**August 16th**—NAISMA: Introduced Plant Pathogens Threatening North American Forests, 2:00pm to 3:00pm. Registration required: [naisma.org/event/webinar-introduced-plant-pathogens-threatening-north-american-forests/](https://naisma.org/event/webinar-introduced-plant-pathogens-threatening-north-american-forests/)



## Website of the Month

BeachGuard is a website maintained by the state of Michigan (EGLE) which lists beach advisories and closures. You can click on each county to see current and past advisories and closures! Both public and private beaches are listed. [egle.state.mi.us/beach/](http://egle.state.mi.us/beach/)

## Invasive Species Spotlight—Asiatic Garden Beetle

- *Maladera castanea* is a brown beetle native to China and Japan
- Larva are a small, white grub with a brown face, and is C-shaped
- Adults are about 3/8 in. long and shaped like a coffee bean
- Adults burrow just under the soil during the day, and emerge at night where they can severely defoliate plants and trees



Photo Credit: S. Singh

## Native Species Spotlight—Eastern Gray Treefrog

- *Dryophytes versicolor* is a tree frog that ranges from gray to green in color
- Adults range from 1.25 to 2.4 in. long and weigh about 7 g
- They have sticky toe pads that allow them to climb trees and windows
- Inside of legs appear yellowish
- Prefer to live in forested areas near bodies of water



Photo Credit: S. Singh

If you have questions, please contact JLW Cisma Coordinator Dr. Shikha Singh at [shikha.singh@macd.org](mailto:shikha.singh@macd.org) or (517) 395 - 2089.

Visit our website for more events and resources: [jlwisma.weebly.com](http://jlwisma.weebly.com)



@JLWCISMA



@JLW\_CISMA



@JLW\_CISMA

