SPOTTED LANTERNFLY

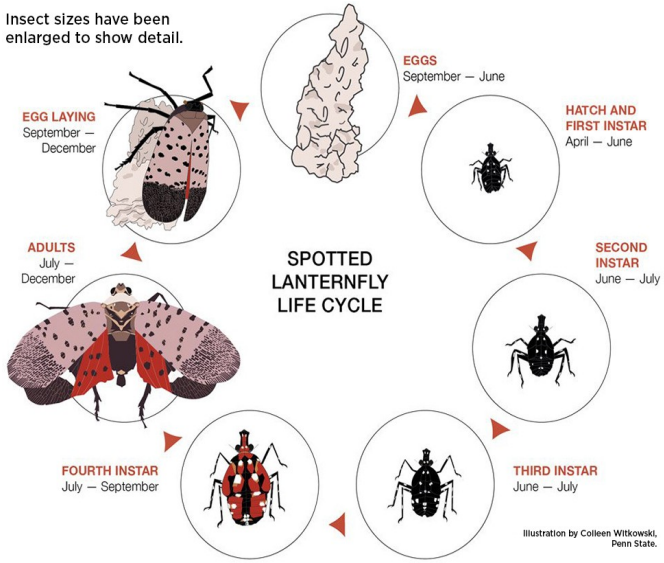
A BRIEF OVERVIEW

What is the Spotted Lanternfly?

Lycorma delicatula is an invasive insect native to Asia. Since the 2014 arrival of SLF in PA and surrounding states, populations have proliferated, wreaking havoc on our ecology, economy and enjoyment of the outdoors.

SLF can feed on 70+ plant species, weakening their hosts to the point of death while also secreting a sticky substance called honeydew that promotes mold growth. As a rule, SLF targets some of our most important plants, threatening fruit, nursery/landscape, and hardwood industries, valued at nearly $18 billion in PA alone.

To help contain SLF spread, it is essential to learn all we can to develop and implement effective mitigation techniques.



https://kensaerdens.com/life-cycle-spotted-lanternfly/

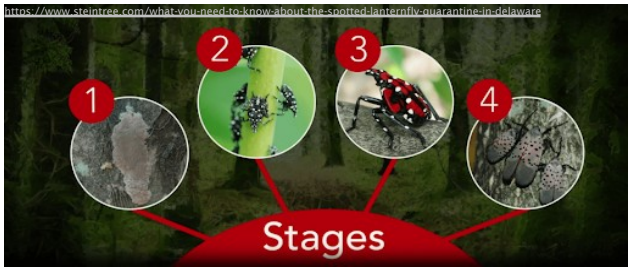
Effective August 11, 2020

WHO WE ARE

SLF RESEARCH TEAM, LAFAYETTE COLLEGE

Our Goal

We aim to enhance our understanding of the life cycle and propagation of SLF through in depth literature research and field work.



Our Team

Dr. Nancy McCreary Waters is an Associate Professor of Biology, teaching at Lafayette College since 1985. Her courses include ecology, aquatic ecology, environmental biology, as well as teaching in introductory biology and other interdisciplinary courses. Her research projects focus on population-level and community-level phenomena, and the physiological adaptations of organisms to environmental changes.

Analisa Coppa is a rising sophomore from Long Island NY, majoring in neuroscience.

Sakib Shahriar Arnob is also a rising sophomore, hails from Bangladesh, and is double majoring in biology and economics.

Together we are investigating SLF in the tri-state area and hope to enlist **YOUR HELP**!

WHAT YOU CAN DO

HELP US FIGHT THIS INTRUDER

Assisting Our Research

Conducting research on this relatively new but already widespread organism is nearly impossible without broad-scale monitoring efforts and coordinated field experiments done in the affected geographical area.

SLF emerges from egg masses in June, hatching into 1st instar nymphs that molt into 2nd instar nymphs within a few weeks and 3rd instars by early July. This is where **citizen-scientists like YOU** come into play—why not take part in an informative science study suitable for nearly anyone to participate! Help us advance our scientific understanding… and trap a few SLF as well! **Consult the next page to learn how** you can create simple but effective standard traps and provide us with your data!

Check out our website for more resources and techniques to manage this pest's impact: sites.lafayette.edu/slf

https://www.certifiedtraininginstitute.com/tree-of-heaven-attracts-devilishly-destructive-spotted-lanternfly

TRAPPING PROTOCOL FOR OUR PROJECT

MATERIALS YOU WILL NEED:

- White or neon (not black) double-sided tape 2" wide; carpet tape is a good choice; get as close to 2" as you are able
- Scissors.
- Flexible measuring tape…like a sewing tape.
- Plastic snack-size zipper bags.
- Disposable gloves.
- Mobile phone with camera and GPS.

INFORMATION WE WILL WANT:

- Collection time(s) and date(s)
- GPS coordinates of tree; tree species, if possible
- Circumference of tree trunk @1.5m
- Clear photographs

IF YOU HAVE QUESTIONS

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PROTOCOL (REMEMBER…YOU ARE A SCIENTIST!)

- Cut your carpet tape into a 2" x 6" strip.
- Choose your tree; record the species (if known).
- Record the GPS coordinates of the tree; use the Compass app or Google Maps
- Measure from the ground straight up to ~1.5 meters (~5 feet). This is the best spot to sample, but if SLF are already on the trunk, try to place the tape just below where they congregate.
- Press the tape firmly to the trunk. Measure and record the circumference. where the tape is affixed. Note the time.
- After 3 hours has elapsed return to the trap and photograph several clear pictures. We want to be able to see individuals, both SLF and other organisms caught. *Optional* Extend the capture for another 3 hours, allowing all organisms to accumulate on the tape. Do not extend for longer than 6 hours. Photograph again.

- **OPTION A:** Remove the tape with gloved hands, destroy SLF…**OR**…
- **OPTION B:** Slit a snack bag down both sides. Turn inside out. Press to seal the trapped specimens onto one side. Carefully remove tape. Fold over other side of baggie to smooth and seal to adhesive. Place inside a second zipper bag and seal. Freeze to euthanize all insects. Ship to us at no charge (contact us for directions)

- **THEN**…Go to sites.lafayette.edu/slf , click on "Trap and Upload Directions" and follow the brief questionnaire at the bottom of the page to submit your data.
- Repeat as often as you wish!

Video Tutorials for the Protocol Above – Scan QR code with camera below or visit: sites.lafayette.edu/slf/trap-and-upload

SCAN ME