

Spotted Lantern Fly (*Lycorma delicatula*)

Rapidly spreading in Pennsylvania with incursions into New York, Delaware, and Virginia, this invasive insect poses a threat to Virginia's grape, orchard, and logging industries as well as home gardens. No chemical or biological control programs have been identified yet.

The Spotted Lantern Fly first appeared in the Pennsylvania in 2014. By 2017, it expanded to 13 Pennsylvania counties, 1 county in New York, and 1 county in Delaware. It was found in Frederick County, Virginia on 10 January 2018.

Adults are approximately 1 inch long and one-half inch wide, and they have large and visually striking wings. Their forewings are light brown with black spots at the front and a speckled band at the rear. Their hind wings are scarlet with black spots at the front and white and black bars at the rear. Their abdomen is yellow with black bars. Nymphs in their early stages of development appear black with white spots and turn to a red phase before becoming adults. Egg masses are yellowish-brown in color, covered with a gray, waxy coating prior to hatching.

Eggs hatch in the spring and early summer, Look for adults starting in July. Copulation and oviposition can be observed from evening to night from mid-September to November. Look for egg masses on rocks and other smooth surfaces from October to early spring.

Nymph and adults typically gather in large numbers on host plants. They are easy to spot at dusk or night as they migrate up and down the trunk of the plant. During the day, they are harder to see as they tend to cluster near the base of the host plant if adequate canopy cover exists. Adults are found on tree trunks, stems, and sometimes near leaf litter at the tree base. Although winged, adults are poor flyers but very strong jumpers and thus prefer to move up trees by walking. Adults will lay eggs on other smooth-trunked trees or any vertical smooth surface, natural or manmade.

Adults prefer to feed and lay eggs on the Tree of Heaven (*Ailanthus altissimo*) in the fall. Tree-of-Heaven is also a non-native invasive plant. Nymphs feed on a wide variety of plants which includes almost every plant they encounter on the ground as well as apples, plums, cherries, peaches, nectarines, apricots, almonds, pine, oak, walnut, poplar, and grapes. The insect will change hosts as it goes through its developmental stages.

Both nymphs and adults suck sap from stems and leaves, reducing photosynthesis, weakening the plant, and eventually contributing to the plant's death. In addition, feeding can cause the plant to ooze or weep, resulting in a fermented odor, and the insects themselves excrete large amounts of fluid (honeydew). These fluids promote mold growth and attract other insects.

Additional Information (including photos and instructions for reporting)

- http://www.newsadvance.com/lifestyles/don-davis-spotted-lantern-fly-on-its-way-south/article_4ac521de-2f05-5d09-b12c-f390857baca5.html
- <http://www.vainvasivespecies.org/species/spotted-lanternfly>
- https://www.washingtonpost.com/local/maryland-is-bracing-for-an-invasion-of-lanternflies-and-racing-to-slow-their-spread/2018/02/28/ba16eea4-1768-11e8-8b08-027a6ccb38eb_story.html?utm_term=.005b8d4f9138