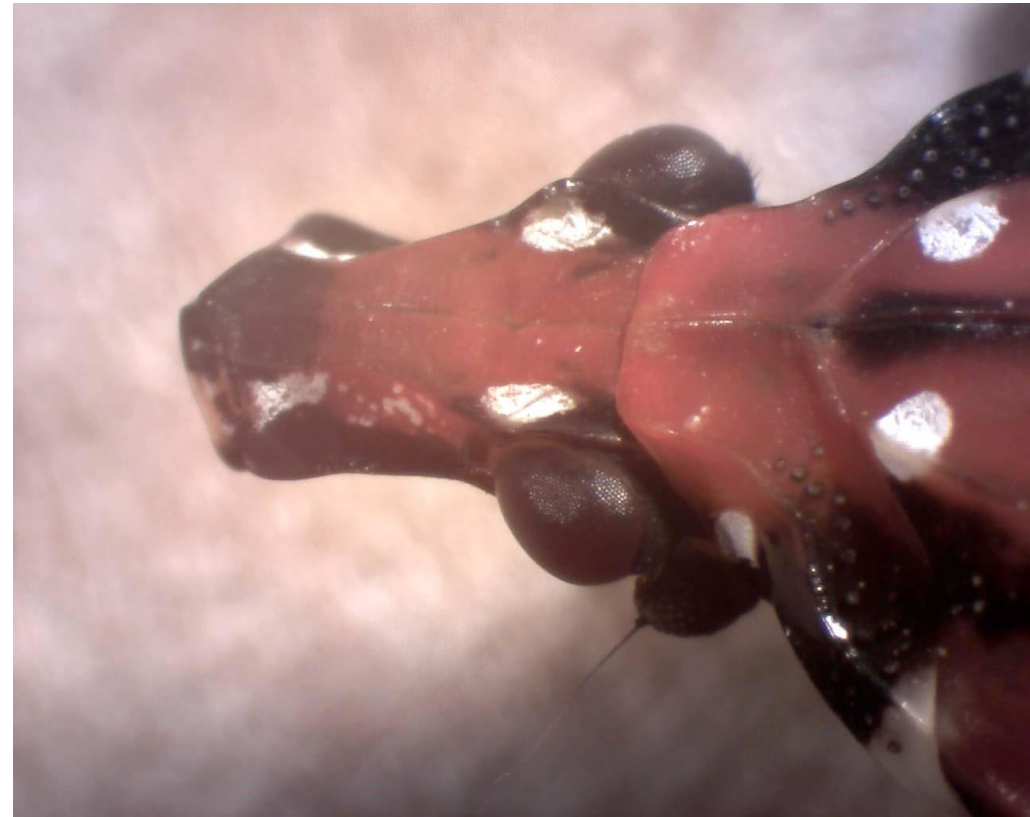


# SLF in Virginia: Activity at Virginia Tech and VDACS



# Virginia Tech Efforts

- Mark Sutphin Extension Agent, Frederick
  - Assisting VDACS compile a landowner contact list for properties within the treatment area.
  - Scouting the perimeter
  - Education, Education, Education
- Doug Pfeiffer
  - Phenology
  - Host range
  - Trapping methods
  - Education, Education, Education
- Scott Salom, Rachel Brooks, Tom McAvoy, and Ashley Toland
  - Assessing whether SLF can vector *Verticillium nonalfalfae*
  - Attempting to rear this insect in quarantine.
- Tracy Leskey (USDA), Tom Kuhar, Scott Salom, and Andy Dechaine
  - Testing the suitability and preference of different hardwood species as hosts for SLF.
- Eric Day and Theresa Dellinger
  - Detection
  - Outreach
  - Extension publications
- Master Gardeners - More later

# Discovery in Virginia

- Presentations in anticipation!
  - Va Assoc Forest Health Prof. Jan 2017
  - SLF Preparedness Symposium Mar 2016
  - Fruit schools since 2015
- Jan 10 found at a stone yard in Winchester



# Discovery in Virginia

- Meeting with VCE, VDACS, VDOF personnel in Frederick County
- Meeting with Rockingham County staff



# Host Range



Tree of heaven  
Wild cherry  
Multiflora rose  
Poison ivy  
Smooth sumac  
Black locust  
White pine  
Wild grape  
Table grape



# Behavior



# Phenology



# Phenology

Instar/Stage	Predicted Date*	Observed Date	Body length (Korea) (mm)	Body Length (Virginia) (mm)
N1		9 May	3.91	3.81
N2	28 May	84% on 30 May	5.67	6.0
N3	18 Jun	75% on 13 Jun	8.88	9.1
N4	9 Jul	26 Jun	11.45	11.40
Adult	31 Jul	12 Jul		

\* Based on days/stadium in Park et al. (2009)





# Risk of Range Expansion



# Risk of Range Expansion



# Existing Material:

## <https://ext.vt.edu/spotted-lanternfly>

spottedlanternflyvirginia@gmail.com

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### Spotted Lanternfly in Virginia



A potentially very serious pest of grapes, peaches, hops, and a variety of other crops, the **spotted lanternfly (SLF)**, *Lycorma delicatula*, was detected in Frederick County, Virginia, on Jan. 10, 2018.

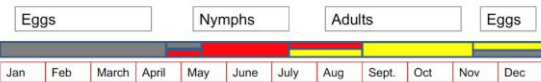
It is important to look for it and report any finds.

Spotted lanternfly has also been reported on a range of ornamentals around the home.

### Spotted Lanternfly Lifecycle in Virginia

ENTO-268NP

The Spotted Lanternfly (SLF) overwinters in an egg mass (gray bars) that starts out shiny gray and quickly turns to a dull brownish gray. The eggs hatch in late April or early May and the immatures or nymphs (red bars) are present until late July when the adults (yellow bars) emerge. Adults lay eggs in the fall. The life stages can overlap and depending on the time of year, multiple stages can be found at the same time.



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7/26/2018

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### Ask a Question

Give your question a title

Question

A Normal text **Bold** *Italic* Underline Small

Email

Location and County (optional)

Virginia

County



**Spotted Lanternfly in Virginia, be sure to include name, address, and email contact information when submitting images for identification**

#### About this group

This group is to enable Extension professionals to collect information about a new pest, the Spotted Lanternfly.

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### Spotted Lanternfly

*Lycorma delicatula* (White) (Hemiptera: Fulgoridae)

By: Douglas G. Pfeiffer, Eric R. Day and Phillip A. Sisti, Virginia Tech Entomology

**Origin & Distribution:** The spotted lanternfly (SLF) has been detected in Virginia in Frederick County in the northern part of the state in January of 2018. The SLF originates from China where its presence has been documented in detail dating as far back as the 12<sup>th</sup> century. In modern times, it was first recorded from a sample collected in Nankin, China. SLF is native to China, India, Japan, Korea, and Vietnam. In September 2014, the first detection of spotted lanternfly in the US was confirmed in eastern Pennsylvania. In 2017, the range expanded to 13 Pennsylvania counties and a single county in both Delaware and New York; the geographical range is likely to expand further. SLF is likely to have arrived from China up to two years earlier than first detected on shipping materials, pointing to its ability to overwinter successfully. It is highly invasive and can spread rapidly when introduced to new areas. This is attributed to its wide host range (more than 70 host plant species) and a lack of natural native enemies.

**Description:** The first stage nymph is wingless, black, and has white spots on the body and legs. The last nymphal instar develops red patches over the body while retaining the white-spot pattern.



Adult SLF are approximately 1" long and 1/4" wide. The legs and

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### Pest Alert:

#### Spotted Lanternfly *Lycorma delicatula*

The spotted lanternfly (SLF) was detected in Virginia in January 2018. It is an invasive planthopper that was discovered in Pennsylvania in 2014. In Pennsylvania and its native range, it is a pest of grapes, peaches, hops, and apples. It is commonly associated with tree-of-heaven, *Ailanthus altissima*. It has the potential to be a serious pest of agriculture and home gardens in Virginia.



Adult Spotted Lanternfly, USDA photo

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#### Alerta de Plagas:

##### Mosca Linterna con Manchas *Lycorma delicatula*

La Mosca Linterna con Manchas (SLF por sus siglas en inglés) se detectó en Virginia en enero de 2018. Es una plaga invasora que se descubrió en Pensilvania en 2014. En Pensilvania y su área de distribución nativa, es una plaga de uvas, albaricoques, higos y manzanas. Se asocia comúnmente con el árbol del cielo, *Ailanthus altissima*. Tiene el potencial de ser una plaga seria de la agricultura y los jardines domésticos en Virginia.



Adulte de la Mosca Linterna con Manchas. Foto de USDA

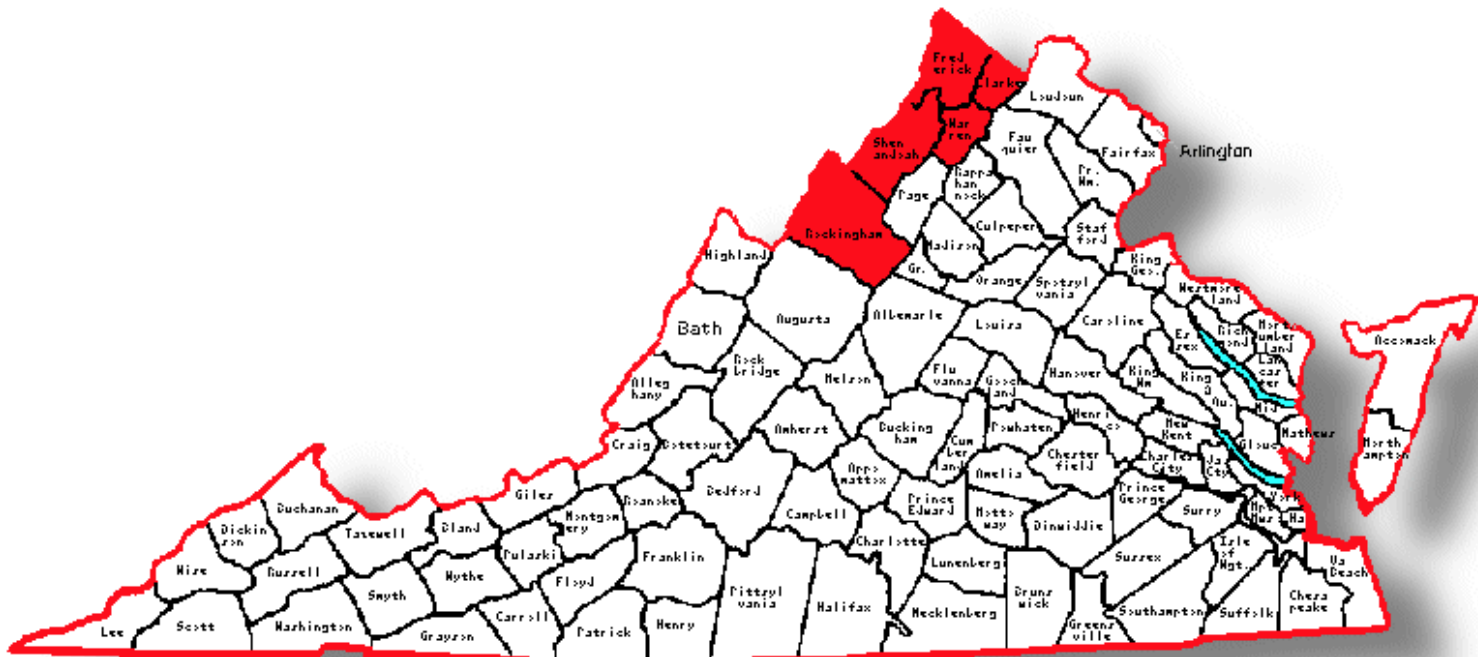


Identificación: 1. Acumamiento de la masa de huevos, 2. Semadura (ninfas) en tallos, 3. Adultos, 4. Masa de huevos en ramas, 5. Masa de huevos en la corteza. Fotos tomadas por Eric Day, VA Tech.

Eric Day  
Doug Pfeiffer,  
Theresa Dellinger,  
Beth Sastre,  
Linda Melton  
Phillip Siste

# SLF PILOT DETECTION PROGRAM

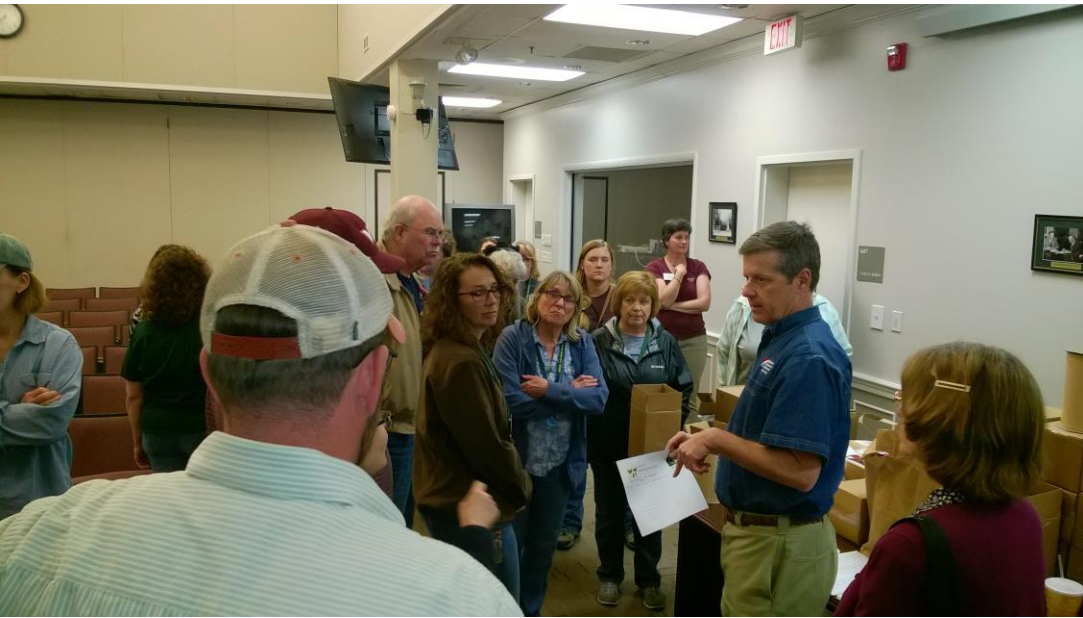
## Master gardeners and Extension employees



- 20+ volunteers
- 5 counties
  - Frederick
  - Clarke
  - Warren
  - Shenandoah
  - (Rockingham)
- Landowners with tree-of-heaven

# SLF PILOT DETECTION PROGRAM

## Master gardeners Training April 26



# Pilot detection project

## Pilot Project

Suzanne Boag, Mark Sutphin and Kris Behrends

- A group of about 20 volunteer banders from our area Extension Master Gardener volunteers. Scouting the five-county region to see if we pick up SLF anywhere else in the area.
- First year limited to Northern Virginia
- Will expand to other counties if needed
- Special thanks to the Northern Shenandoah Valley Master Gardeners Association
- Devon Johnson, Dave Close, John Freeborn

# VDACS Eradication Program

- Also sampling to clarify zone
- Public information meeting
- 24 (c) for dinotefuran on Ailanthus
- Aim to cut and treat TOH in infestation zone
- Will start in about two weeks

# VDACS Eradication Program

