



# Invasive Species in Virginia

*A Brief Overview of Economic and  
Environmental Harm*

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# What is an Invasive Species?

- Non-native to the ecosystem under consideration\*
- Introduction causes or is likely to cause economic or environmental harm, or harm to human health\*
- Primarily spread, especially initially, by human activities (e.g. ship ballast water, packing materials, firewood, escape or accidental release)

\*Executive Order 13112 – Invasive Species (1999)



National Invasive Species Information Center  
U.S. DEPARTMENT OF AGRICULTURE



# Invasive Species Impacts

## Economic Damages

- IPBES calculated \$432 billion in losses annually due to invasive species
- Cost of economic damages from biological invasions in the United States from 1960 to 2020 calculated to be \$1.13 trillion (Cuthbert, et al. 2022)
  - Cost of management in this time was \$278 billion
- California Invasive Species Council estimated \$83 million in losses annually due invasive plants



# Spotted Lanternfly (*Lycorma delicatula*)

- Impacts to agricultural crops
- Threat to native tree species
  - Natural areas and parks
  - Commercial forests



# Spotted Lanternfly Quarantine

## 2022 Additions

- Albemarle County
- Augusta County
- Carroll County
- Page County
- Prince William County
- Rockingham County
- Rockbridge County
- Shenandoah County
- Wythe County
- City of Buena Vista
- City of Charlottesville
- City of Harrisonburg
- City of Lexington
- City of Lynchburg
- City of Manassas
- City of Manassas Park
- City of Staunton
- City of Waynesboro

## Original Quarantine

- Clarke County
- Frederick County
- Warren County
- City of Winchester

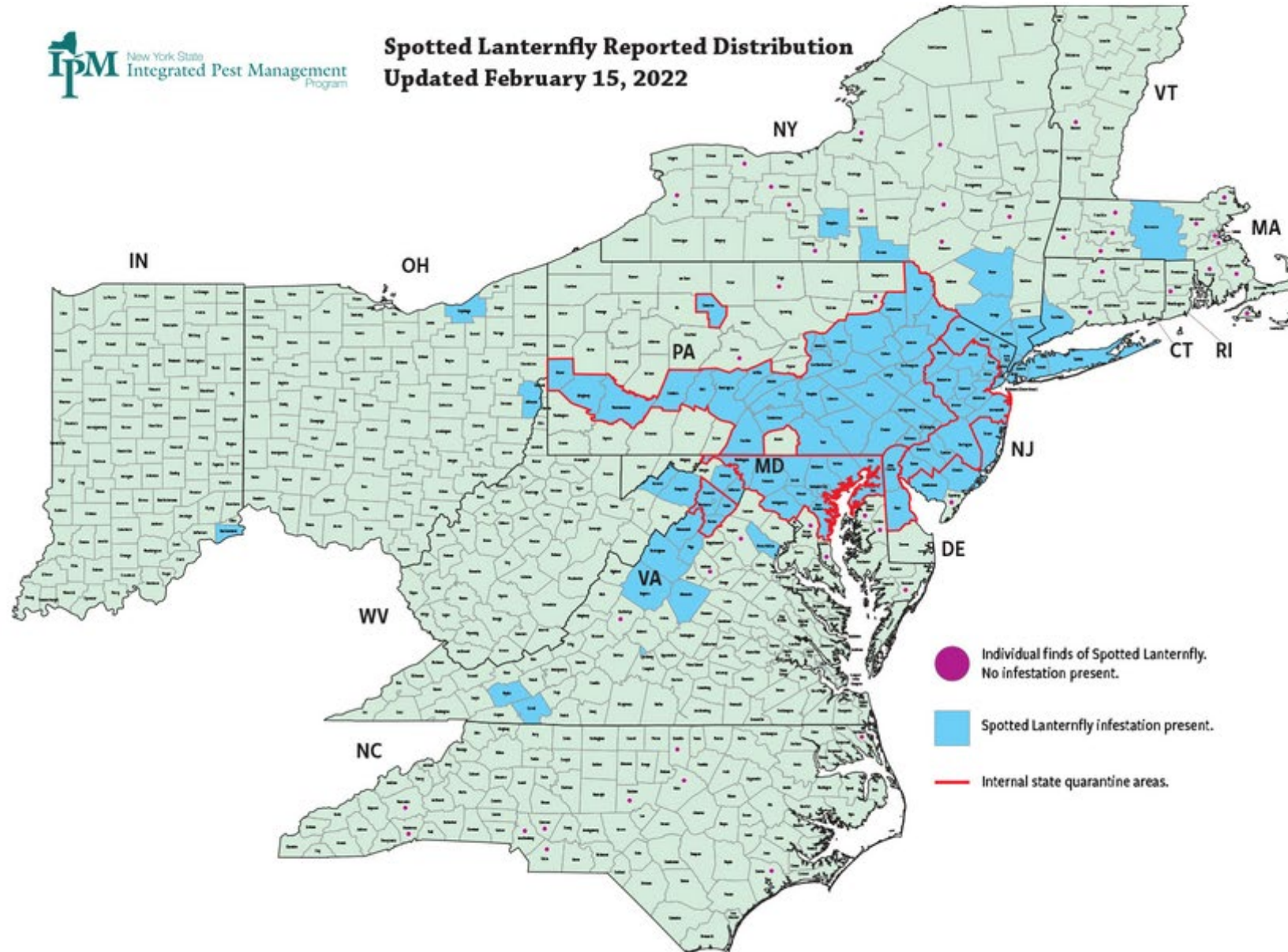





# Spotted Lanternfly Map

## Confirmed Spotted Lanternfly Locations



**Spotted Lanternfly Reported Distribution**  
**Updated February 15, 2022**



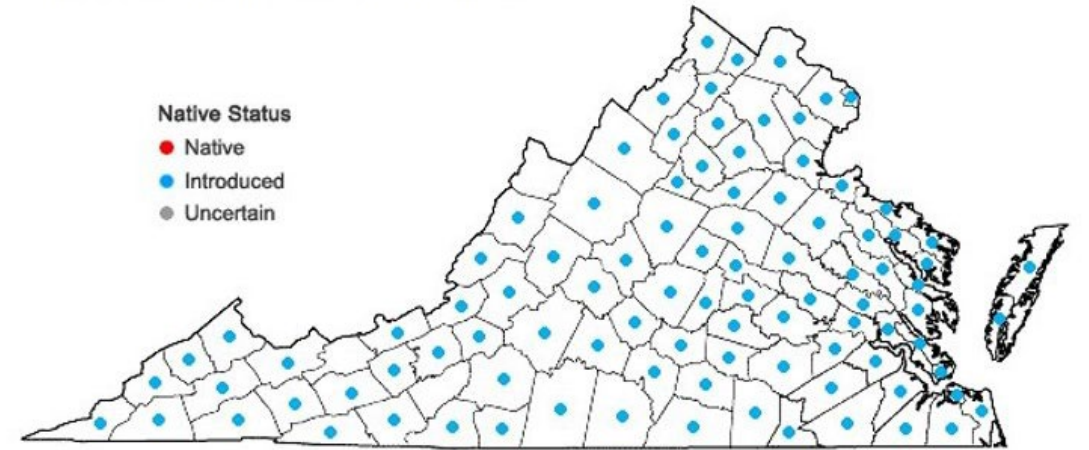
-  Individual finds of Spotted Lanternfly. No infestation present.
-  Spotted Lanternfly infestation present.
-  Internal state quarantine areas.



# Tree-of-heaven (*Ailanthus altissima*)



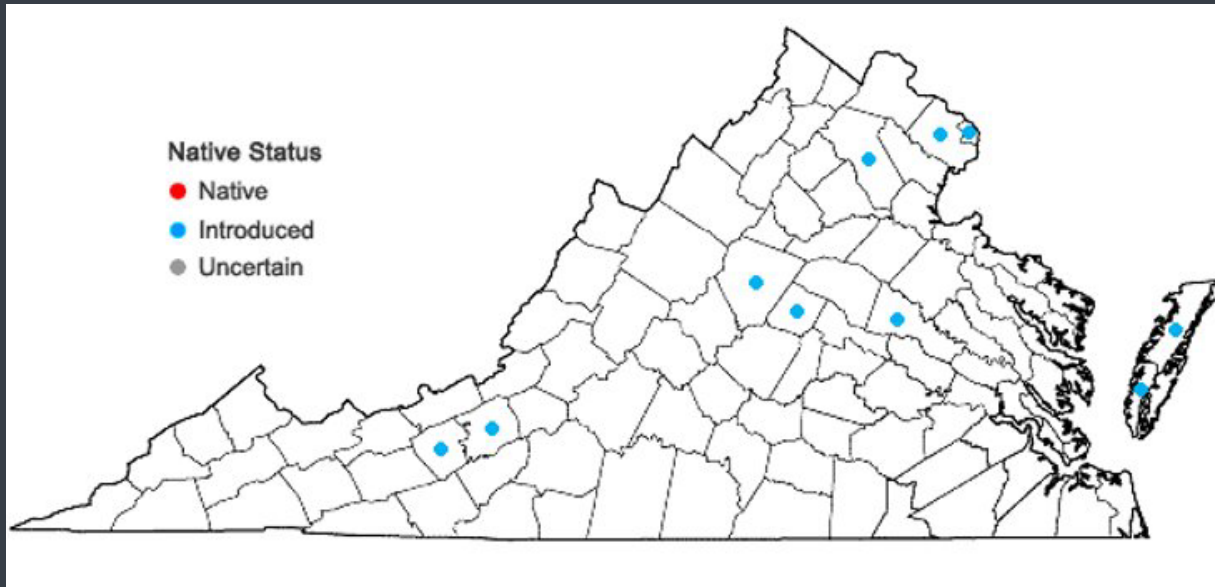
*Ailanthus altissima* (P. Miller) Swingle



# Fountain Grass (*Cenchrus purpuraceus*)

Spreading quickly in Virginia

- *Infestations on the Eastern Shore, Piedmont and in Blue Ridge counties*
- *Invading natural areas, parks and pasture*
- *Pasture becomes unpalatable to cattle*







The Wall Street Journal

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# Everybody Knew the Invasive Grass of Maui Posed a Deadly Fire Threat, But Few Acted

Story by Dan Frosch, Zusha Elinson, Jim Carlton, Christine Mai-Duc • 1w



HAVE YOUR SAY

🗳️ Poll: What is the mai...



# Common Reed (*Phragmites australis*)

Has spread throughout Virginia

- *Over 15,000 acres of Phragmites in coastal plain marshes*
- *Invading natural areas, parks, wildlife management areas, and private properties*
- *Marshes becomes converted to one species*





In 1964 :

**0 acres**  
of *Phragmites*  
in Back Bay

In 2020:

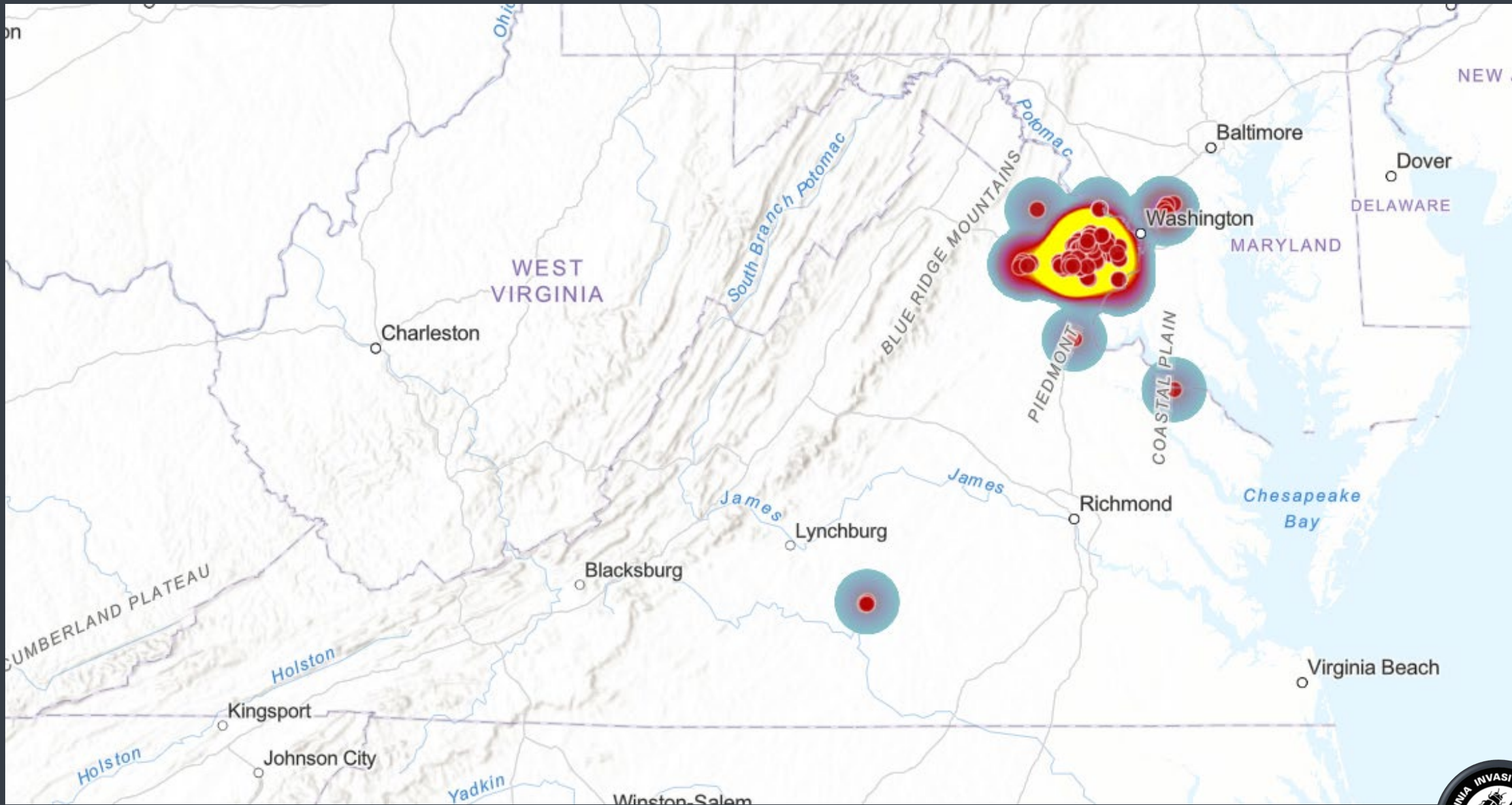
**5,885 acres**



# Two-horned Trapa (*Trapa bispinosa*)

- Invades ponds and shallow slow-moving waterways
- Retention ponds
- Drainage ditches
- Landscape features













# Emerald Ash Borer - (*Agrilus planipennis*)

- Destroyed tens of thousand of trees in urban and natural landscapes
- Ecological change in low-lying areas
- Horticultural and forestry losses







# Wavyleaf Grass (*Oplismenus undulatifolius*)

- Outcompetes ground cover plant species
- Alters or suppresses forest regeneration



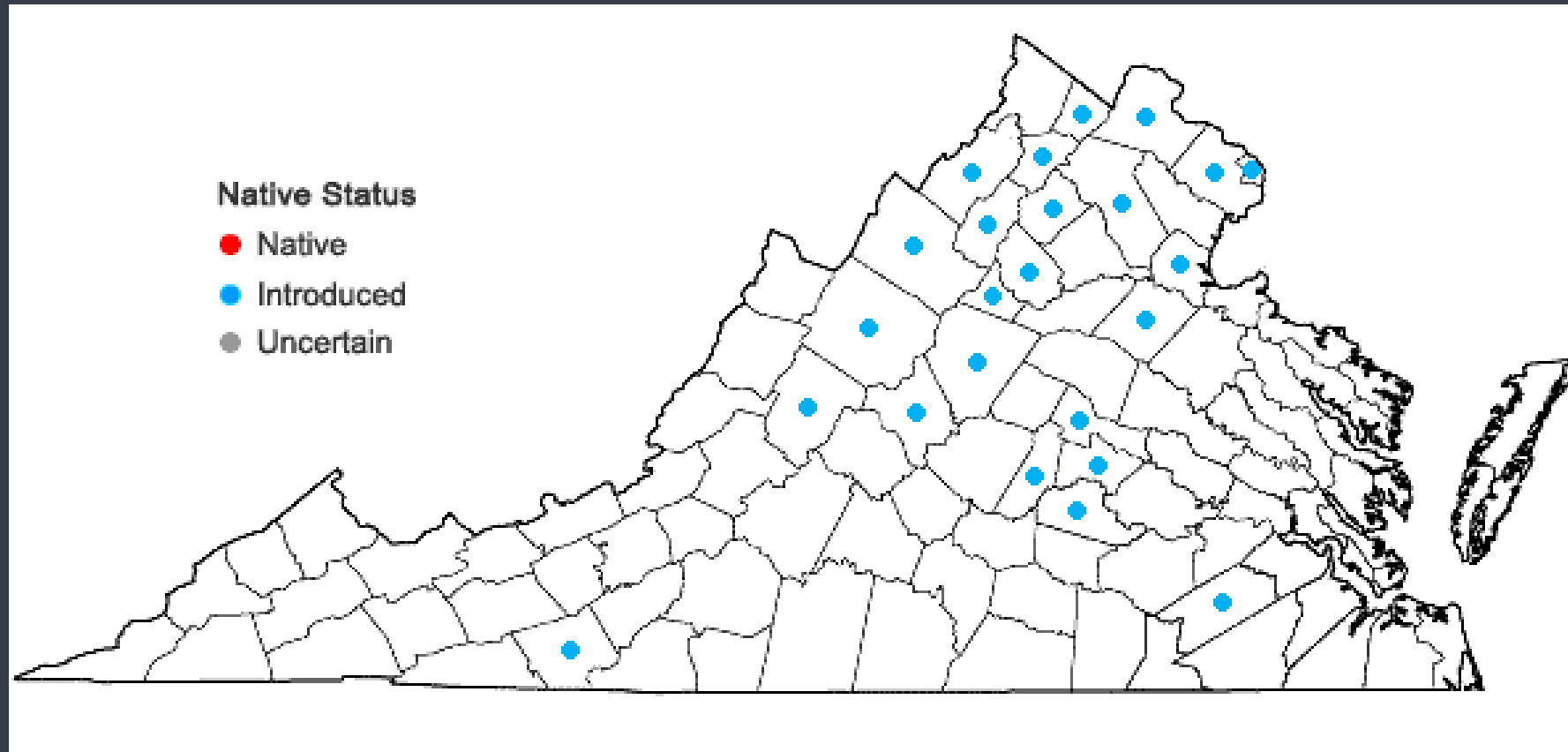


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# Wavyleaf Grass (*Oplismenus undulatifolius*)







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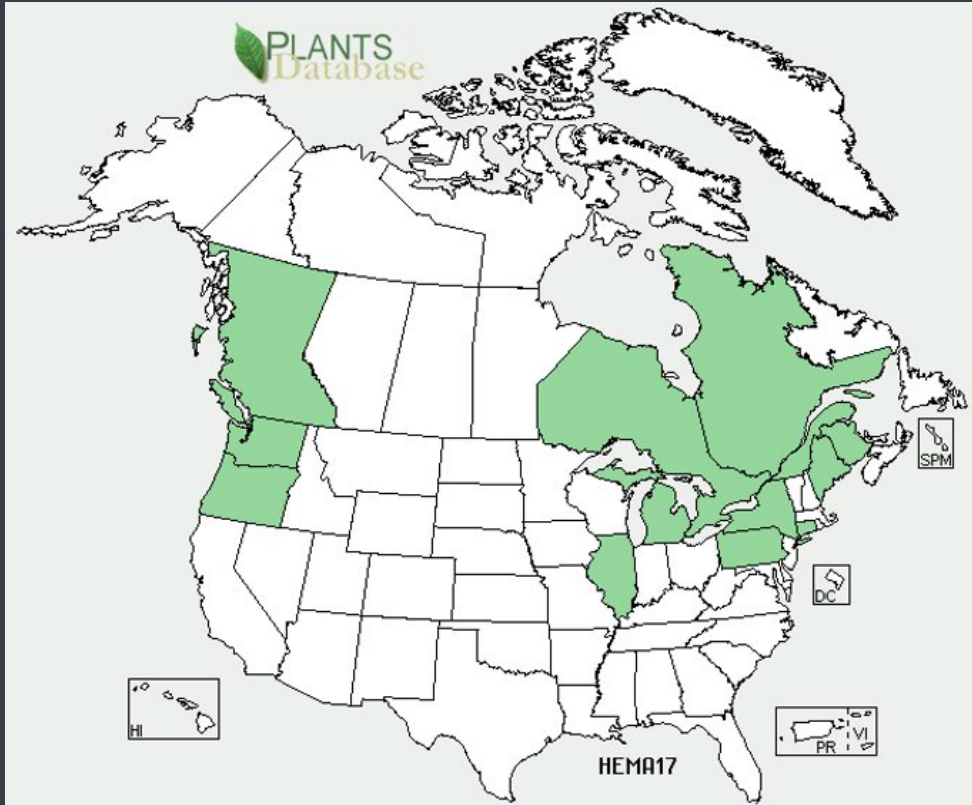


# Invasive Species on the horizon



# Giant Hogweed

(*Heracleum  
Mantegazzianum*)



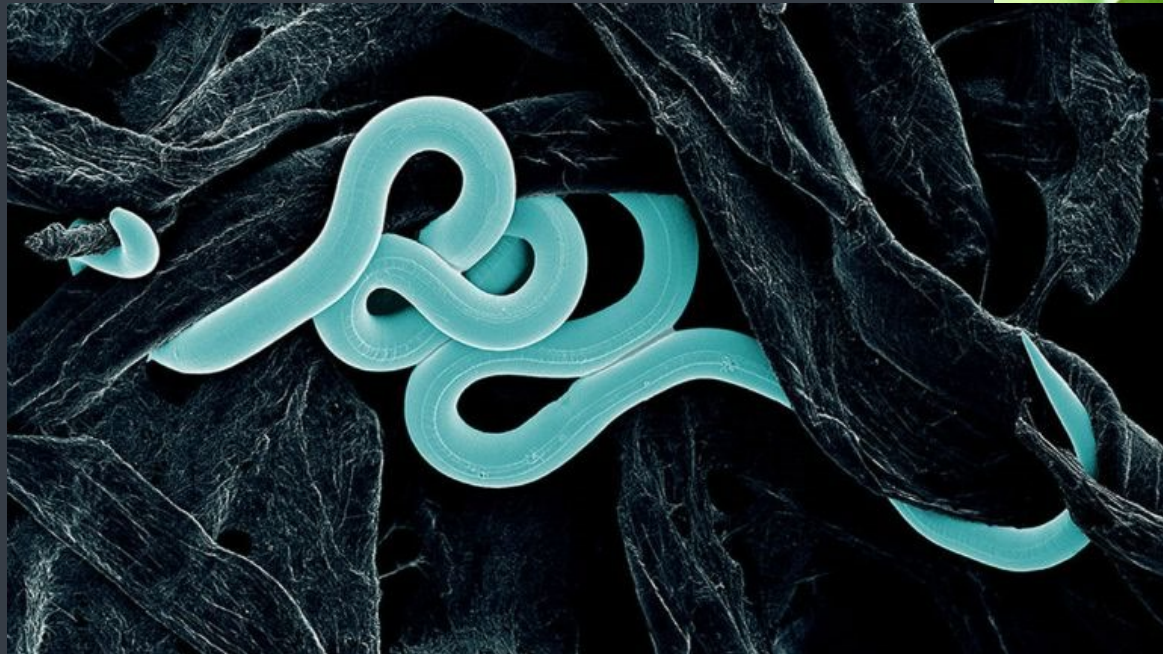


UGA1148090



## Beech Leaf Disease

- Associated with nematode (*Litylenchus crenatae*)



Report on the Request of the Virginia General Assembly for “industry resources and recommendations ...for the full implementation of the existing Virginia Invasive Species Management Plan.”

*§ 10.1-104.6:2. Invasive plant species.*

2. That the department of conservation and recreation shall convene the Virginia Species Working Group to develop industry resources and recommendations to be sent to the Chairmen of the Senate Committees on Agriculture, Conservation and Natural Resources and Finance and Appropriations and the House Committees on Agriculture, Chesapeake and Natural Resources and Appropriations for the 2024 regular session of the General Assembly to support full implementation of the Virginia Invasive Species Working Group's existing [2018] Virginia Invasive Species Management Plan.



# Invasive Species Management Plan (2018):

7 Goals  
21 Strategies  
60 Actions

- COOPERATION (STATE, FEDERAL AND STAKEHOLDERS)
- PREVENTION
- EARLY DETECTION
- RAPID RESPONSE
- MONITORING AND MANAGEMENT
- RESEARCH AND RISK ASSESSMENT
- EDUCATION AND OUTREACH





# Invasive Species Management Plan Implementation Recommendations

	<b>Eradication/ Slow the Spread</b>	<b>Statewide Coordinated Response</b>	<b>Personnel</b>	<b>FTEs</b>	<b>Total</b>
<b>DOF</b>	\$325,000	\$365,000	\$250,000	2	\$940,000
<b>VDACS</b>	\$350,000		\$135,000	1	\$485,000
<b>DCR</b>			\$250,000	2	\$250,000
<b>DWR</b>	\$525,000		\$250,000	2	\$775,000
<b>Total</b>	\$1,200,000	\$365,000	\$885,000	7	\$2,450,000

