

Non-Native Invasive Plants

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- **Why are they such a problem?**
- **Which plants in our area are particularly invasive?**

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Invasive alien plants typically exhibit the following characteristics:

- Rapid growth and maturity**
- Prolific seed production**
- Highly successful seed dispersal, germination and colonization**
- Rampant vegetative spread**
- Ability to out-compete native species**
- High cost to remove or control**



**THE TROUBLE
WITH TRIBBLES**

- Rapid growth and maturity
- Prolific seed production
- Highly successful seed dispersal, germination and colonization



Rampant vegetative spread





Ability to out-compete native species

High cost to remove or control



Claytor Lake - Hydrilla now covers more than 400 acres of the 4,600+ acre lake.

Hydrilla: The plant grows as fast as an inch per day and forms dense strands of very long stems (25 ft.) in the water.

Introduced: Introduced from Asia in the 1950s, it spreads via boating.

Problems: Blocks water flow, impedes navigation and recreational activities, clogs water intake pipes and chokes out native plants.

A three-pronged process to reduce hydrilla:

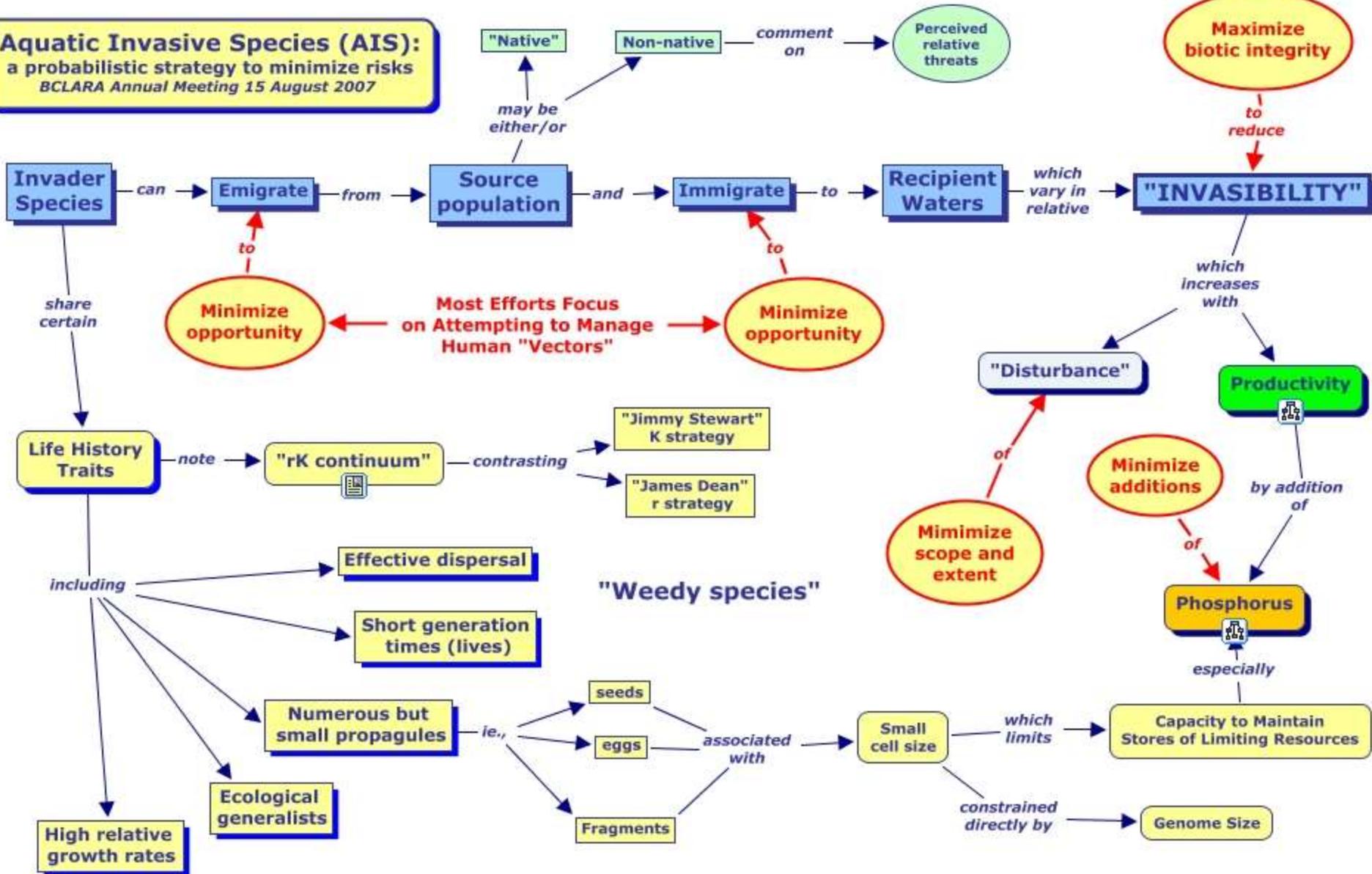
- Grass-eating carp
- Chemicals
- Mechanical harvesting

funded by Pulaski County and Appalachian Power Co. 6,000 grass carp (\$12,000+), \$50,000 for chemical sprays, and mechanical harvesting.

The Dirty Dozen – more or less

- Purple loosestrife
- Garlic mustard
- Bush honeysuckles
- Japanese knotweed
- Autumn olive
- Tree-of-heaven
- Multiflora rose
- Japanese barberry
- Mile-a-minute
- Kudzu
- Japanese stiltgrass
- Wavy leaf basket grass
- Jointed grass

Aquatic Invasive Species (AIS):
 a probabilistic strategy to minimize risks
 BCLARA Annual Meeting 15 August 2007



Each plant can produce up to three million seeds a year. Seeds are small, light and easily dispersed by the wind, which carries them great distances. Loosestrife seeds have high viability, almost 100 % germination rate and remain viable many years in the soil or submerged in water. Plants can also spread vegetatively, by pieces of the stems or roots. (Source: <http://purpleloosestrife.org/faq/index.html>)

Purple loosestrife



Galerucella beetles



Garlic mustard



West Virginia white butterfly

UGA0002

Eggs and young butterflies cannot live on garlic mustard, it has chemicals that are toxic to larvae and eggs



Foto: A. Förster

Bush honeysuckles

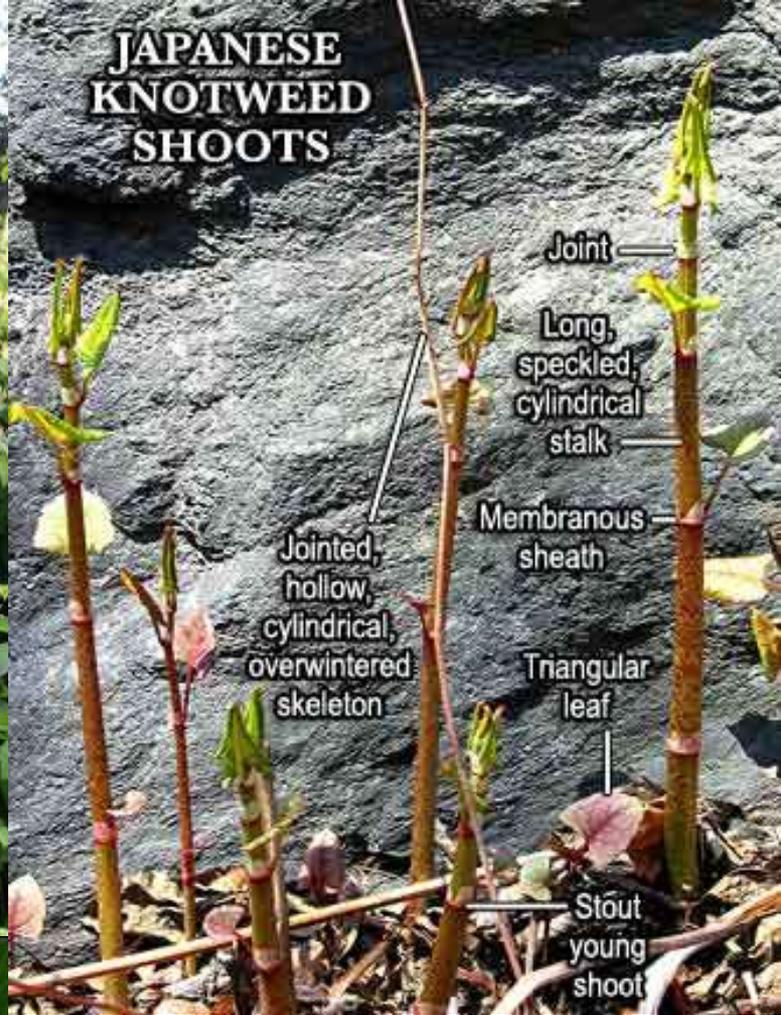
**birds and mice
like to eat the
fruits,
birds and mice
are mobile,
birds and mice
spread their
droppings
widely.**



Japanese knotweed



**JAPANESE
KNOTWEED
SHOOTS**



Psyllid or plant louse

Autumn olive



Tree-of-heaven



Ailanthus Webworm Moths are native in the tropical Americas, where they feed on plants in the Simaroubaceae family. When the nasty, invasive Tree-of-heaven was imported here from China, they apparently jumped to it and greatly expanded their range.

Multiflora rose



Rose rosette virus





Japanese barberry



“Mile-a-minute weed is an ecological and agricultural pest that if left unchecked will take over, shading out everything else. Mile-a-minute is biological pollution that threatens New Jersey’s landscape.”

New Jersey Secretary of Agriculture Douglas H. Fisher

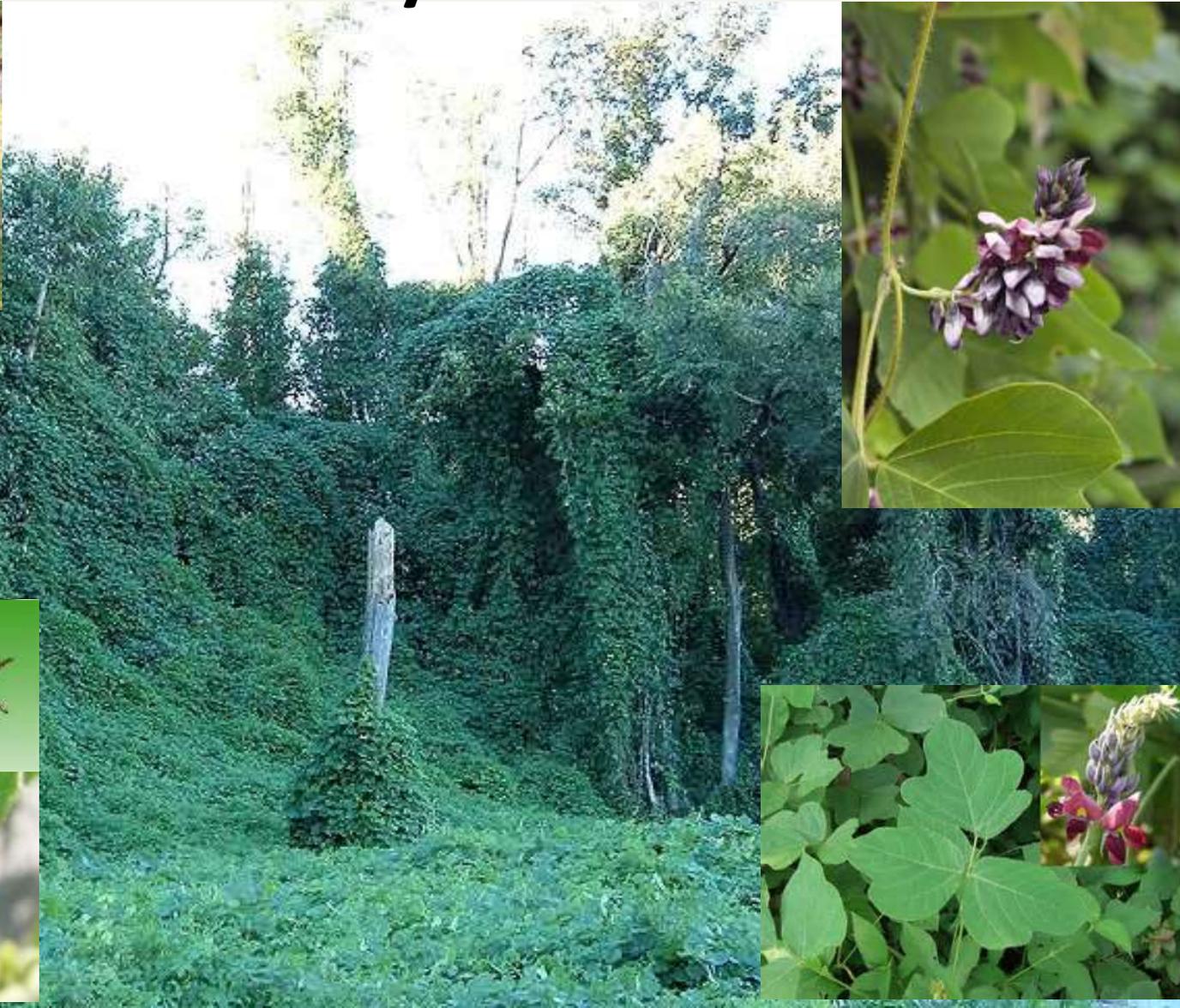
Mile-a-minute weevil



**Mile-a Minute
Vine**



Kudzu: the vine that ate the South. Need I say more?



Kudzu bug





Japanese stiltgrass



In 2009, a previously undescribed disease on Japanese stiltgrass was found. Diseased plants exhibited foliar lesions, wilting, and in some cases, death of entire plants. The causal agent is the fungus *Bipolaris microstegii*.



Wavy leaf basket grass



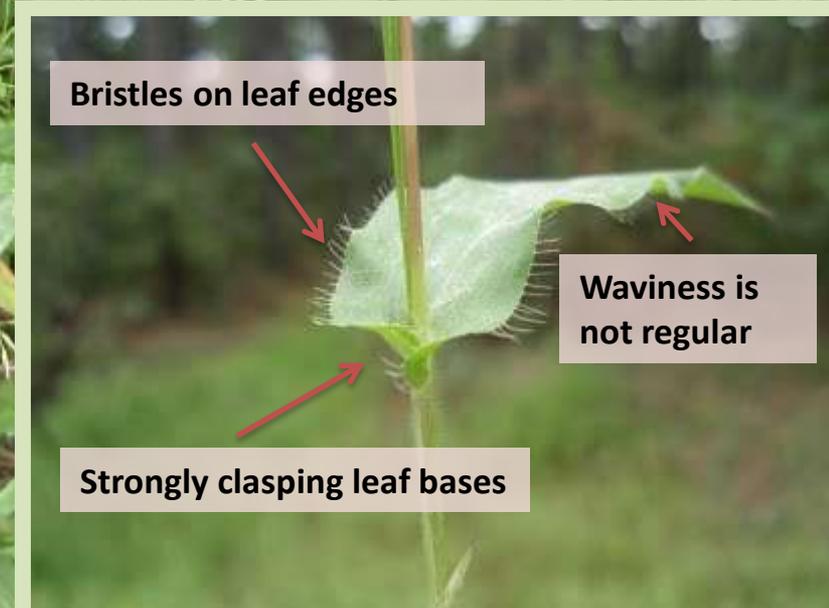
Gall midge



Deer-tongue grass



Jointhead grass



Some Useful Websites:

<http://www.nps.gov/plants/alien/herbs.htm>

<http://www.wvdnr.gov/wildlife/invasivespecies.shtm>

[http://www.dcr.virginia.gov/natural heritage/factsheets.shtml](http://www.dcr.virginia.gov/natural%20heritage/factsheets.shtml)

[http://www.fs.fed.us/invasivespecies/speciesprofiles/index.shtml
#plants](http://www.fs.fed.us/invasivespecies/speciesprofiles/index.shtml#plants)





PART II - BURNED-AREA DESCRIPTION

A. Fire Name:Shipwreck **B. Fire Number:**2012-VAVAF-000055

C. State:VA **D. County:**Page and Rockingham

E. Region:8 **F. Forest:**George Washington NF

G. District:Lee **H. Fire Incident Job Code:** P8GRW9

I. Date Fire Started:4-8-2012**J. Date Fire Contained:**4-17-2012

K. Suppression Cost:\$442,779

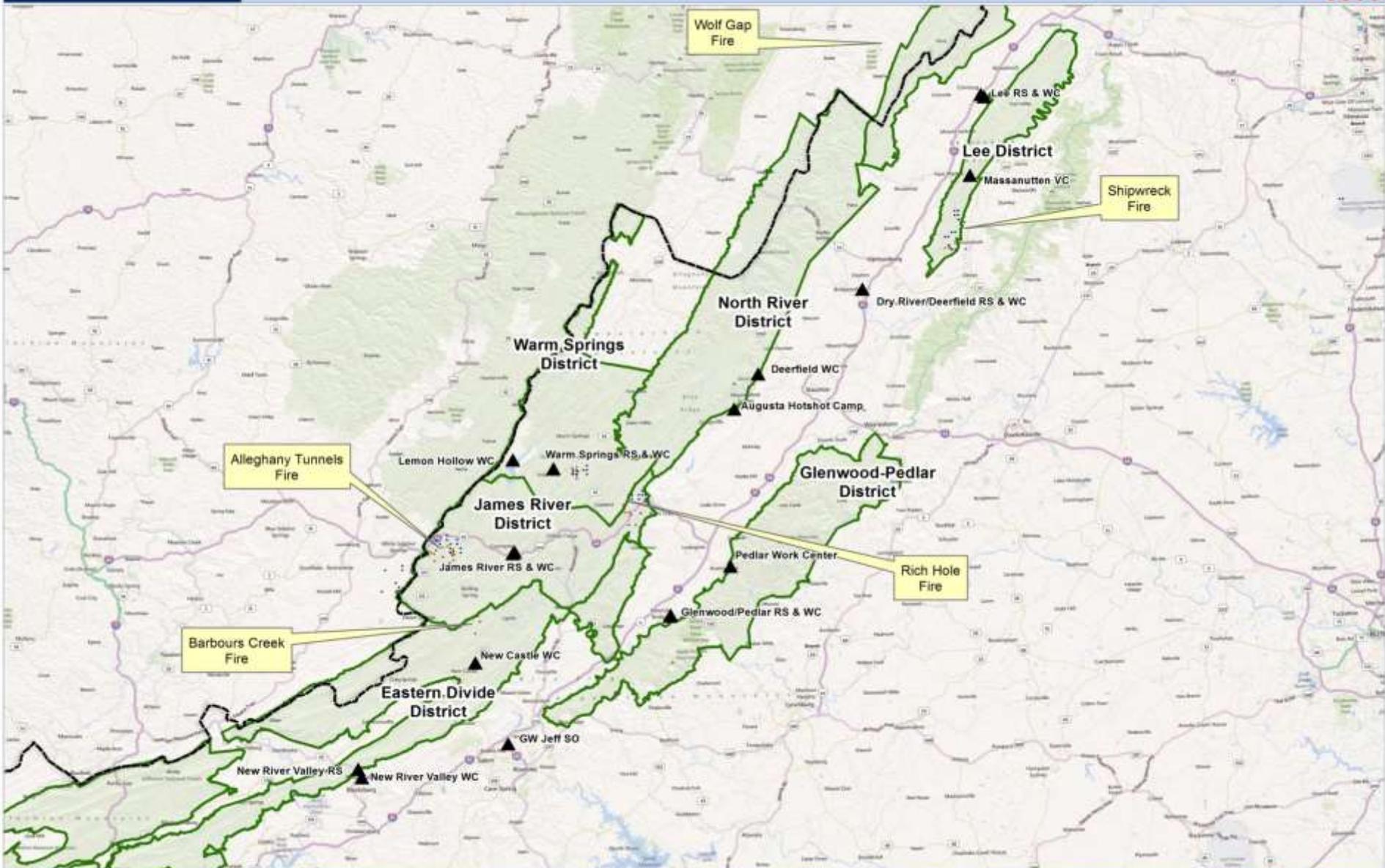






Name	Acres	Location	Air	Date	Crew	C%
Alleghany Tunnel	6892	James River	992 SH 407 DP	4/7	Midewin (M) Davidson, Mescalero Pima, Hopi, Lonesome PINE	20
Barbours Creek	2685	Eastern Divide	662 H	4/7	Augusta Patrick Ironwood	30
Rich Hole	2665	James River		4/9		5
Shipwreck	4748	Lee	479	4/8	Sacramento	60
Wolf Gap	600 17590	Lee		4/8	Tonto Reg. Smokey Bear	50
Angel's Rest	5	Eastern Divide	—	4/10		
Cove Mt.	57	Glen-Ped	—	4/6	Cold Springs	
					Navajo, E OK	



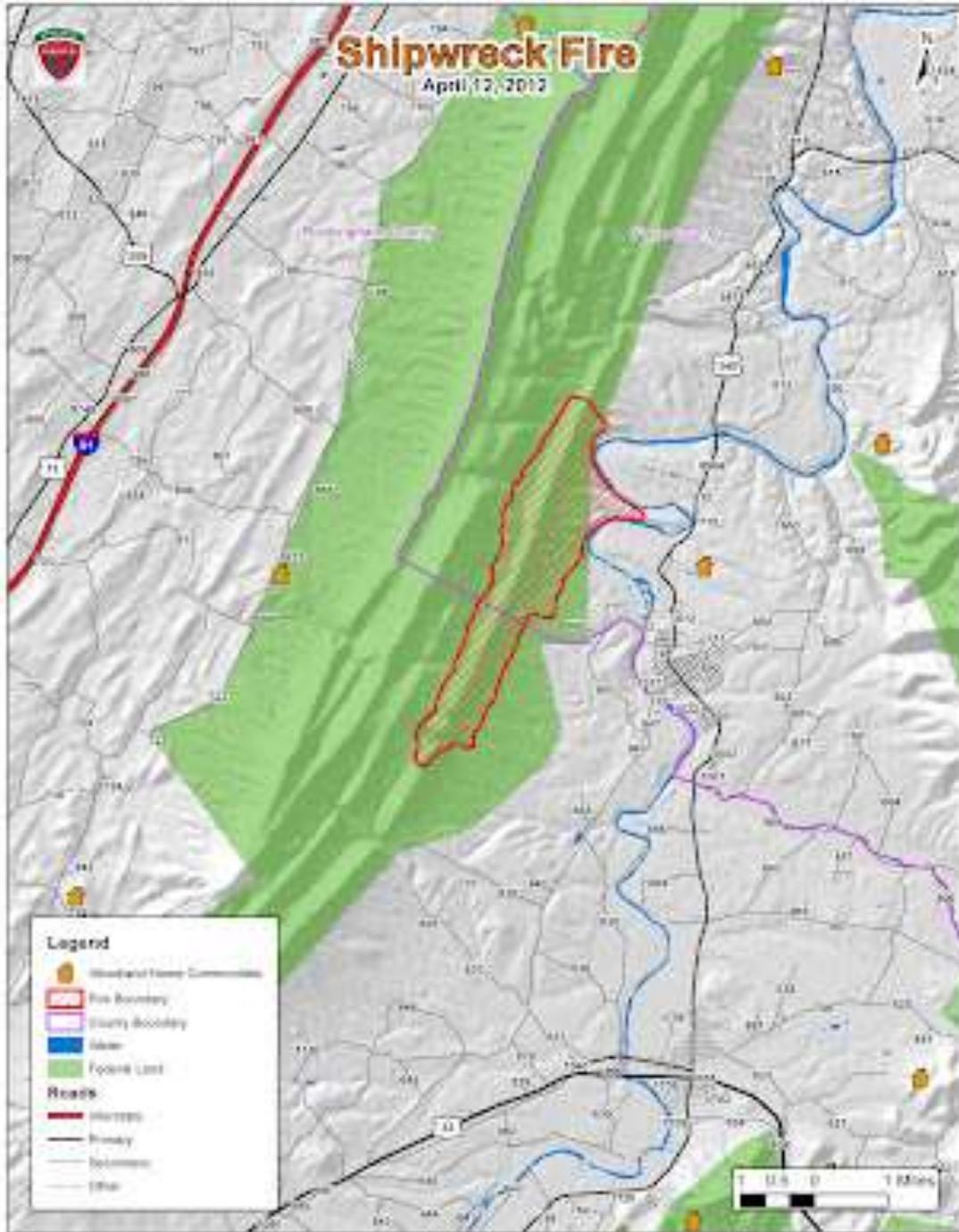


This map and data are for information purposes only. They are not designed for, nor should they be used for legal, accounting or navigation purposes.

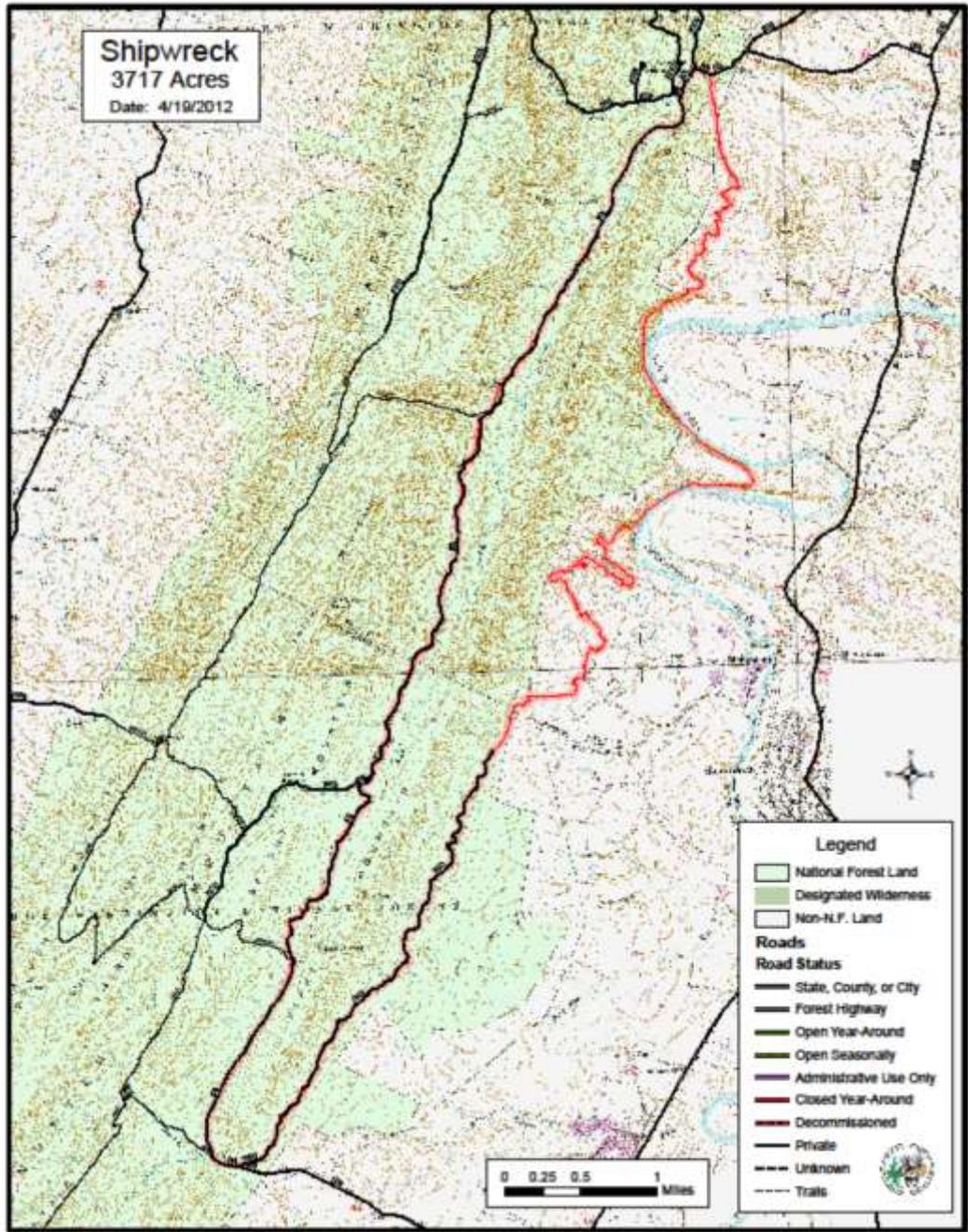
Spatial Reference and Scales
NAD_1983_UTM_Zone_17N 1 inch = 4.69 miles
D_North_American_1983 1:297,304



Wild-Tech Review
10/25/09
4/11/2012
Maple Computer
10/25/09



Shipwreck
3717 Acres
Date: 4/19/2012



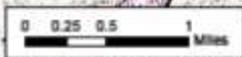
Legend

- National Forest Land
- Designated Wilderness
- Non-N.F. Land

Roads

Road Status

- State, County, or City
- Forest Highway
- Open Year-Around
- Open Seasonally
- Administrative Use Only
- Closed Year-Around
- Decommissioned
- Private
- Unknown
- Trails



Easter Complex

Current acreage: 39,538 acres, 80% contained

Buena Vista, Va - Steady rain for a six to 12 hour period Wednesday will continue to assist firefighters on the Easter Complex fire. Upwards of one half inch of rain is expected throughout the day, which will significantly contribute to suppression efforts. All fires on the Easter Complex are in a mopup and hold status as firefighters continue to improve containment lines around all fires.

Despite today's rain, smoke from interior portions of fires within the Easter Complex may be present for some days. This smoke is from any remaining unburned fuels within the containment lines. Crews will continue to monitor and patrol these areas until each fire is completely suppressed.

The following is a summary of all Easter Complex Fires:

Alleghany Tunnels Fire: 11,381 acres, 90% containment.

Barbours Creek Fire: 7,352 acres, 80% containment.

Porter Mills: 879 acres, 100% containment

Rich Hole Fire: 15,454 acres, 75% containment.

Shipwreck Fire: 3,717 acres, 100% containment.

Wolf Gap: 755 acres, 95% containment.







BEAR Team?



BAER Team

2523.04c - Forest, Grassland, Prairie, and Area Supervisors

Forest, Grassland, Prairie, and Area Supervisors have the responsibility to:

1. Evaluate all wildfires to determine if emergency treatments are warranted. Designate an interdisciplinary **Burned Area Emergency Response (BAER)** team to perform a burned-area survey on fires larger than 300 acres (FSH 2509.13, ch. 10) or when the threats to life, property, natural resources, or cultural resources exist as a result of a smaller fire.



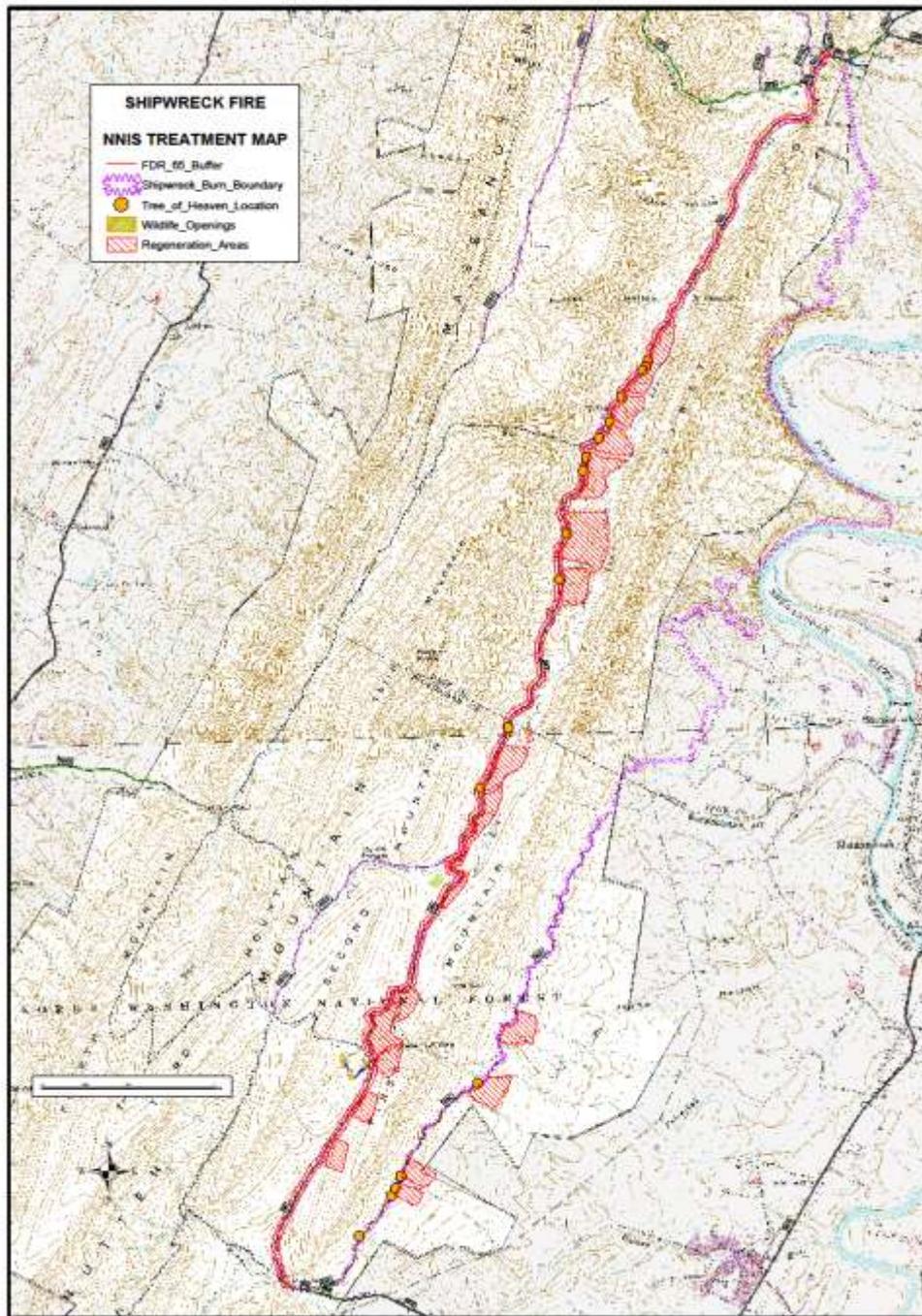


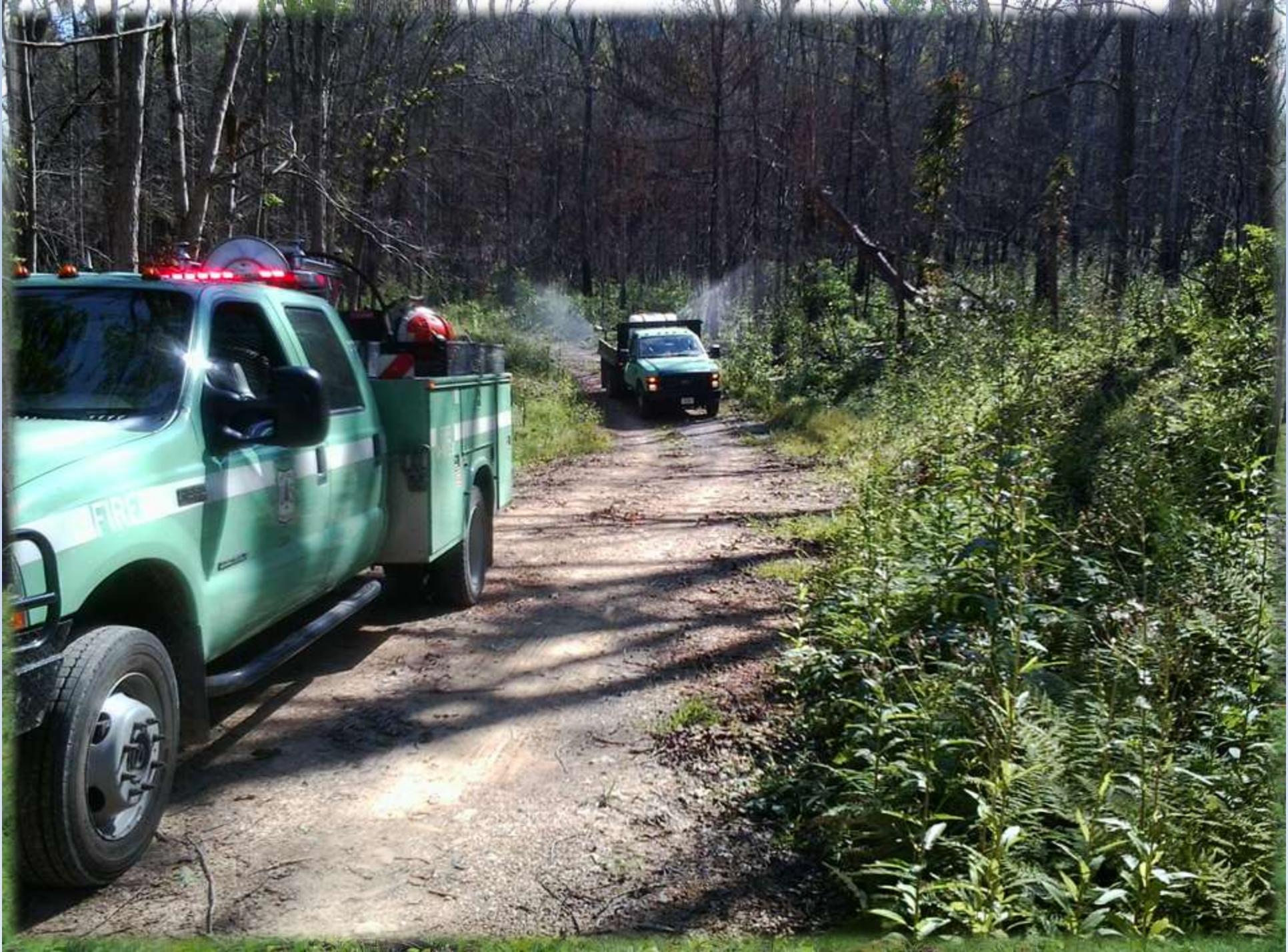
H. Treatment Narrative for the Shipwreck fire:

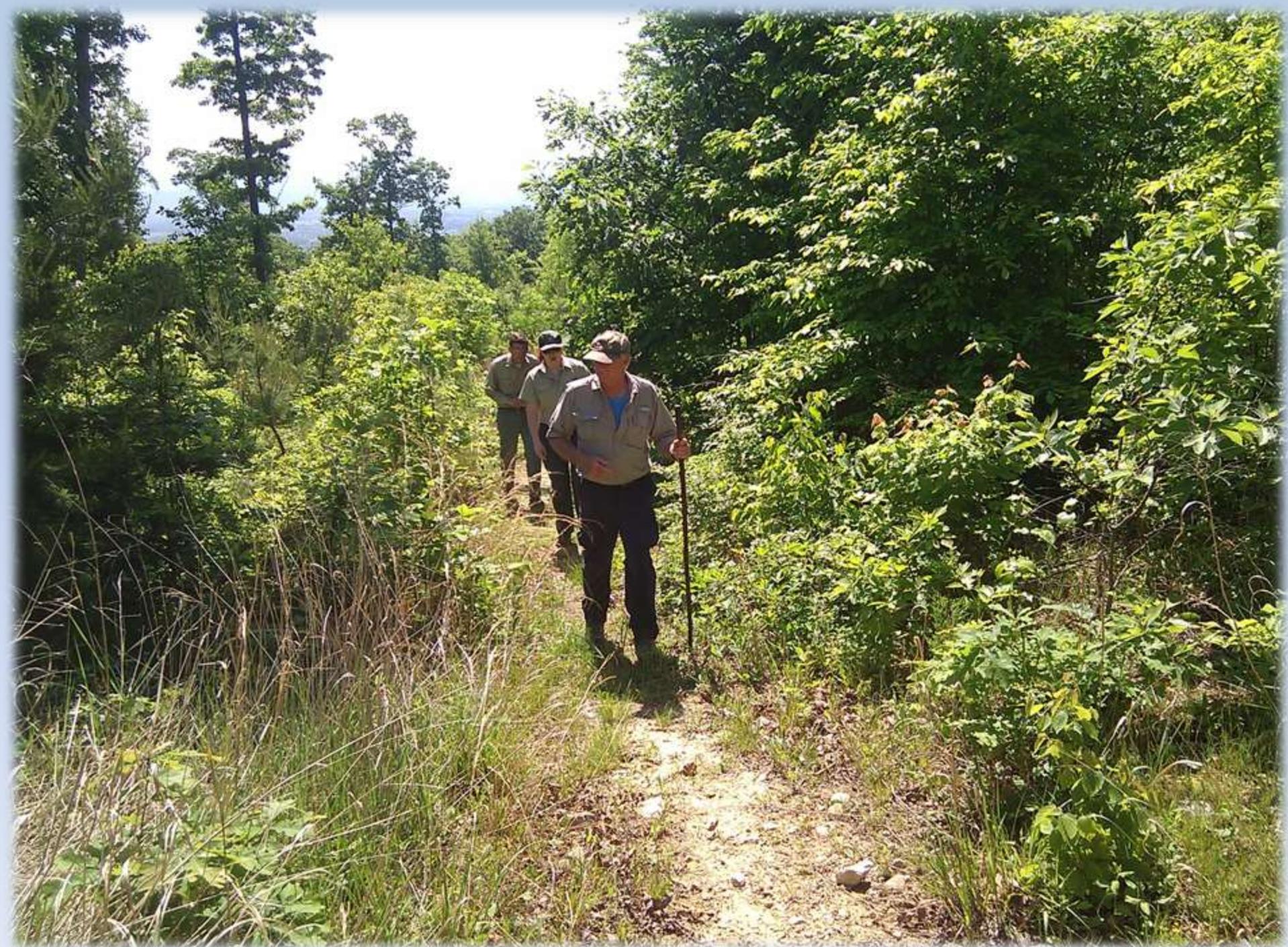
Nonnative Invasive Plant Control

The activity will consist of **control of the three non-native invasive species (tree-of-heaven, autumn olive, and Japanese stiltgrass) located on the periphery or within the burn perimeter.** For all of these a foliar application of 10% glyphosate for trees/bushes below approximately 6 feet in height will be used. Larger invasive trees/shrubs will be treated with tricolpyr ester (Garlon 4) as a basal spray application. Within 30 feet of water only a formulation of glyphosate labelled for aquatic use (Rodeo) will be used as a foliar or cut surface application.

Treat all adjacent NNI plant species within 100 feet of either side of firelines existing as roads surrounding the Southern Massanutten Roadless Area (210 Acres). Also, treat all NNI plant species within 100 feet of wildlife openings (5 acres) and regeneration cuts (322 acres) within and adjacent to the burn. The total area of control will be about 537 acres. Treatment will be completed in summer of 2012 to fall/winter of 2012/2013 when the chemical treatments will be most effective.









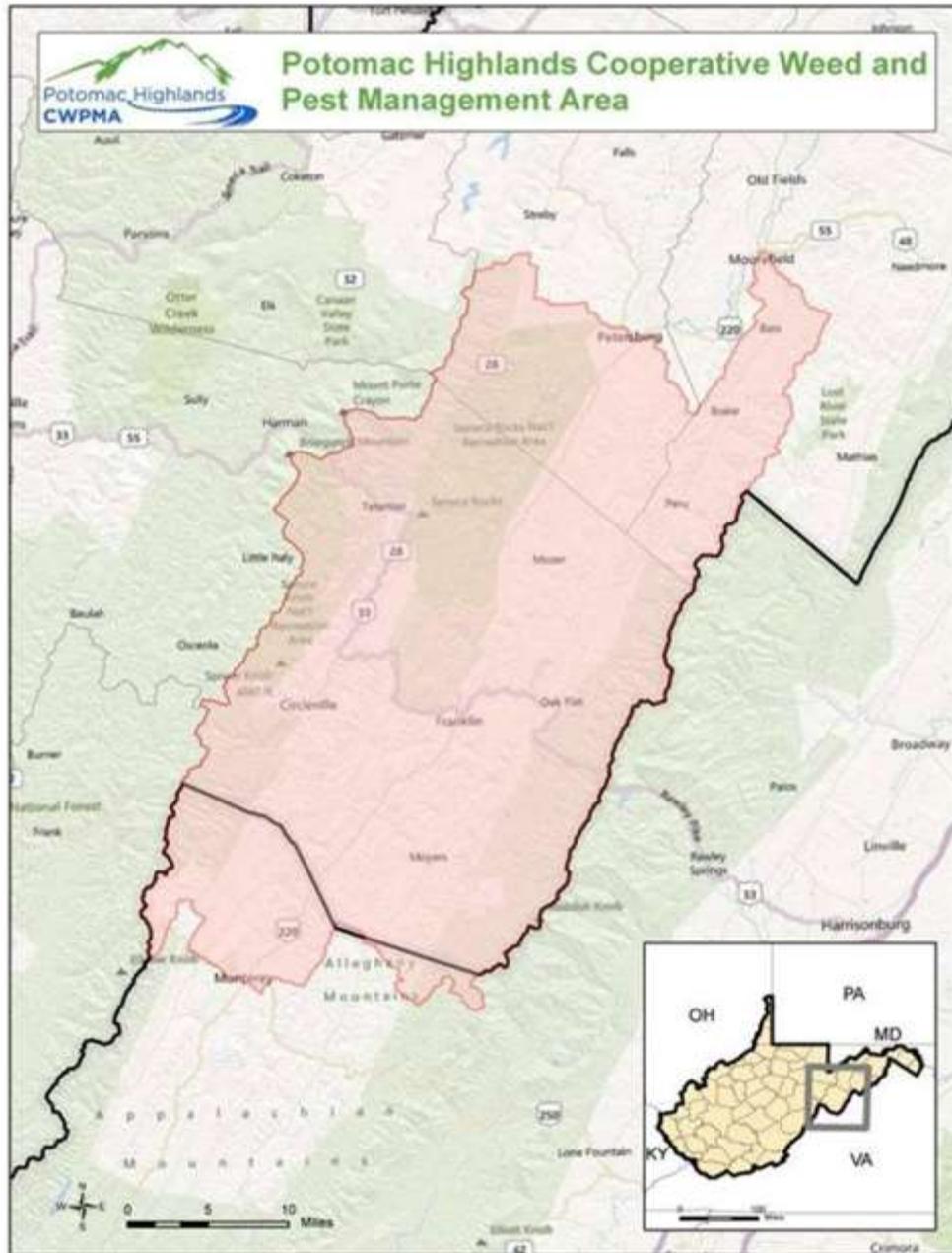








Potomac Highlands Cooperative Weed and Pest Management Area



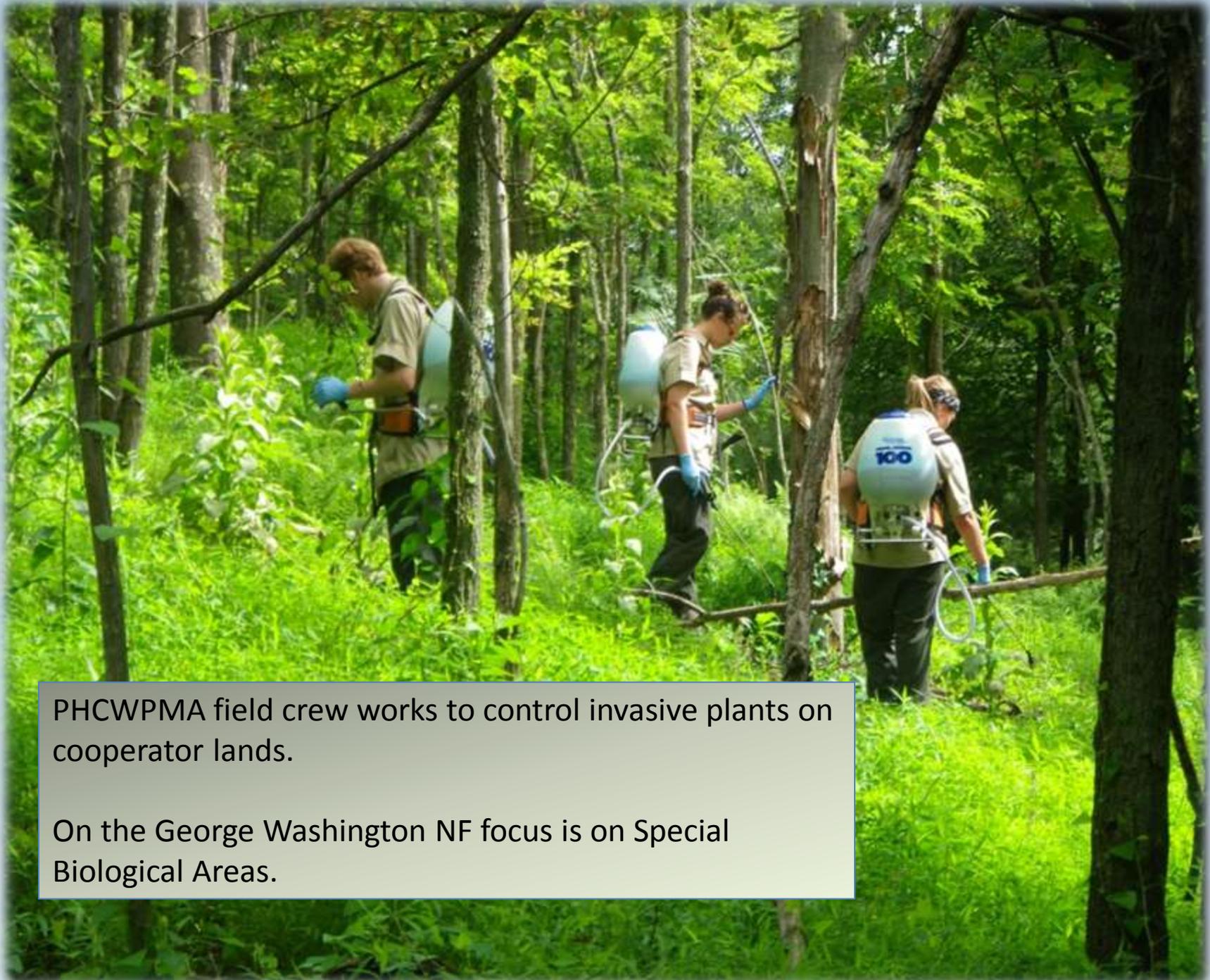
The mission of Potomac Highlands CWPMA is the prevention and management of invasive species in the headwaters region of the South Branch of the Potomac River in West Virginia and Virginia. Our region includes parts of Hardy, Grant, and Pendleton County in West Virginia as well as Highland County, Virginia.

PHCWPMMA Goals and Objectives

Decrease the impacts of invasive species on native plant and animal communities, public and private forest, agricultural lands, and local economies.

Develop and support partnerships among a diverse group of private land owners, concerned citizens, agencies, non-profit organizations, educational facilities, and local governments.

Increase public awareness of the invasive species problem through workshops, field tours, public meetings, and by sharing informational resources.



PHCWPMA field crew works to control invasive plants on cooperator lands.

On the George Washington NF focus is on Special Biological Areas.

**You are invited to an:
Autumn Olive Party at the
Mountain Springs Farm**



Join us for a day of work, play,
and delicious food as we learn
about autumn olive and treat
this harmful non-native
invasive species.

When: August 15, 2013 10:00 am—???

Where: Mountain Springs Farm, Sugar Grove, WV

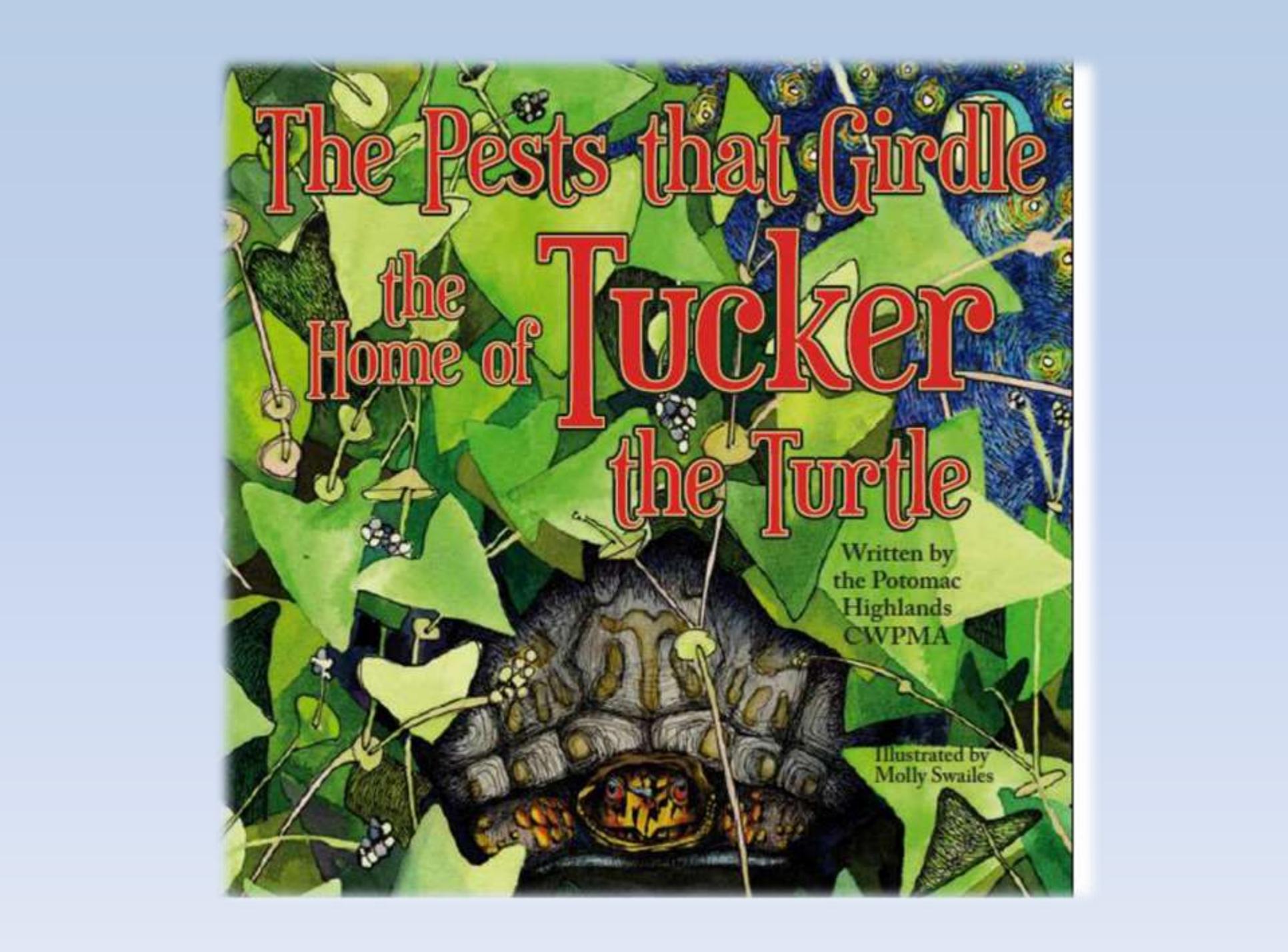


If you would like to attend, please RSVP to Evan Burks with the Potomac Highlands Cooperative Weed and Pest Management Area.

The PHCWPMA conducts educational events for farmers, including treatment methods and herbicide sprayer calibration.

Billboards increase public awareness about the risks of transporting invasive insects.



The book cover features a detailed illustration of a turtle, likely a snapping turtle, positioned in the lower half. The turtle's head is visible, showing its eyes and mouth. The background is a dense field of green leaves and blue flowers, possibly a wildflower field. The title is written in a stylized, red, serif font with a white outline. The text is arranged in several lines: 'The Pests that Girdle' at the top, 'the Home of' in a smaller font, 'Tucker' in the largest font, and 'the Turtle' at the bottom.

The Pests that Girdle
the Home of **Tucker**
the Turtle

Written by
the Potomac
Highlands
CWPMA

Illustrated by
Molly Swailes

The Garlic Mustard Challenge brings out folks of all ages.

A family of three is posing for a photo in front of a rustic wooden building with a metal roof. The man on the left is wearing a white t-shirt and khaki pants. The boy in the middle is wearing an orange t-shirt with a Puma logo and black shorts. The woman on the right is wearing a purple jacket and green pants. They are standing on a stone-paved area. To their right, a bright yellow sign on a metal stand reads "WELCOME WEED WARRIORS" in large blue letters, with "GARLIC MUSTARD CHALLENGE 2011" in smaller red letters below. In the background, there are trees and other people walking on a path.

**WELCOME
WEED
WARRIORS**
GARLIC MUSTARD CHALLENGE
2011







