The Adirondack Park Invasive Plant Program; Leveraging Partnerships to Model Invasive Species Prevention & Management Success

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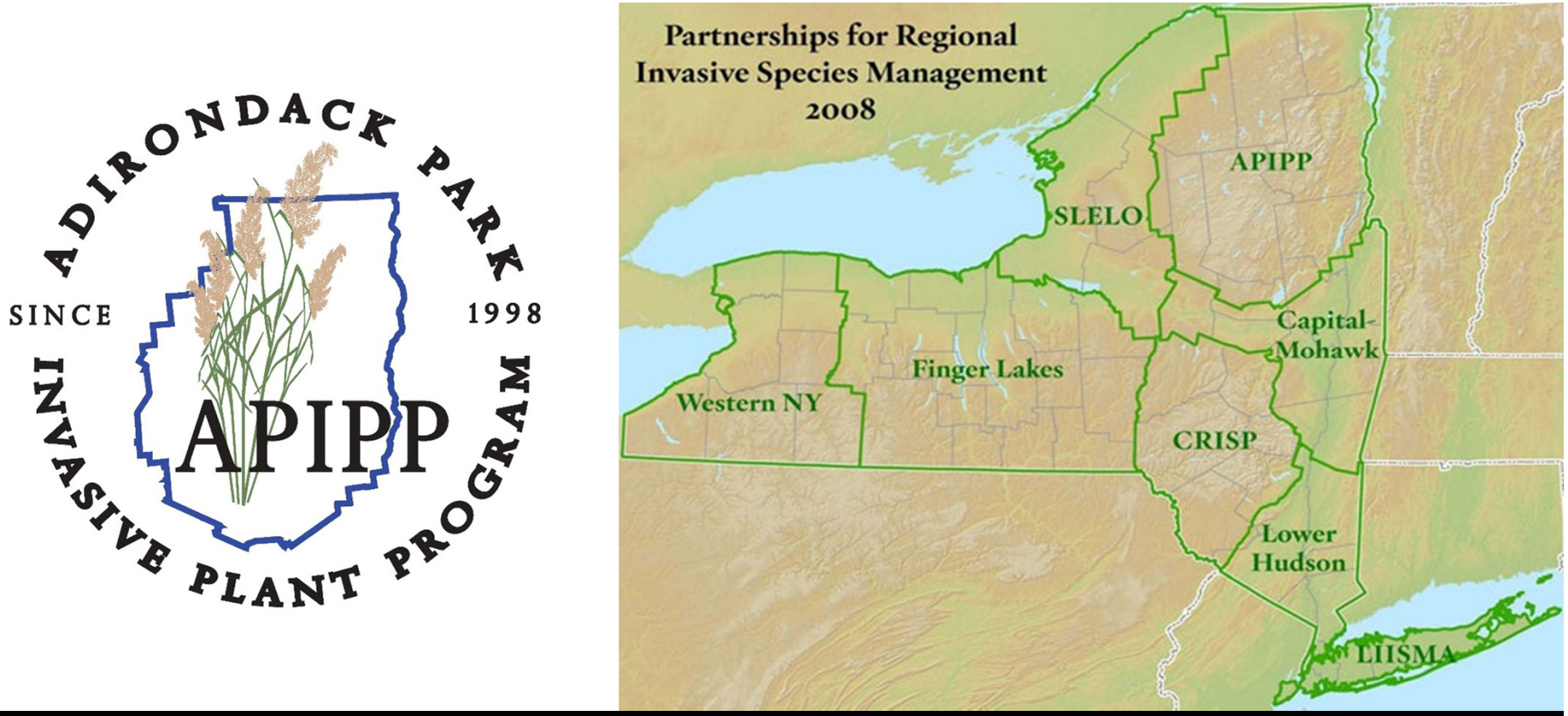


Mission:

To protect the Adirondack region from the negative impacts of invasive species

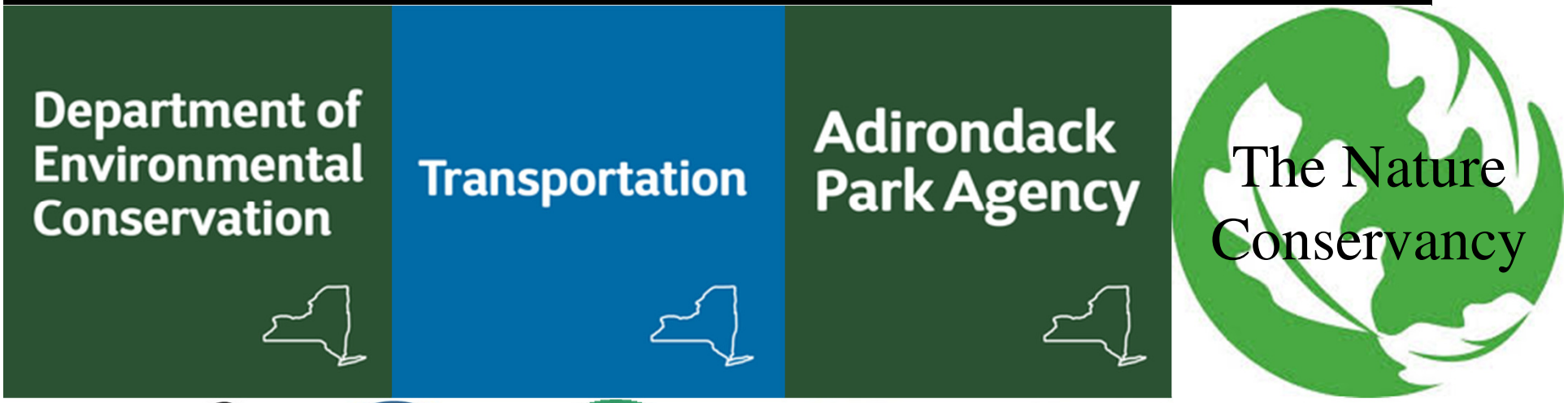
Goals:

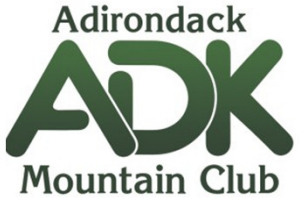
1. Prevent new introductions.
2. Rapidly detect and respond to new infestations.
3. Manage existing priority infestations to mitigate impacts.

Funding:

NYS Environmental Protection Fund

APIPP is a Partnership Program





What is an Invasive Species?

Native Species

Species indigenous to the region/present prior to European settlement

Non-native Species (*Exotic, Introduced, Alien*)

Accidental or purposeful introduction of a species outside of its historic range

Nuisance Species *(pest)*

Species that we put our own value judgments on

Invasive Species *(Noxious)*

Non-native species that rapidly reproduces, displaces native species and causes ecological, economic, or societal harm

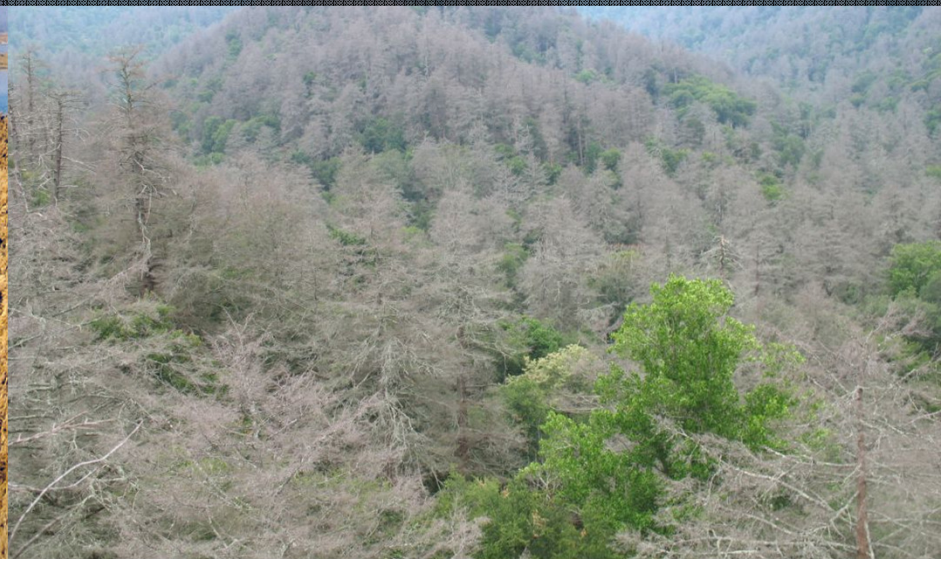
Ecological Impacts

Zebra & Quagga Mussels

Water Chestnut

Phragmites

Hemlock Woolly Adelgid



Economic Impacts

Tree removal costs & reduced property values

Reduced shoreline property values & visitor spending

Reduced crop production

Increased construction costs

Human Health Impacts

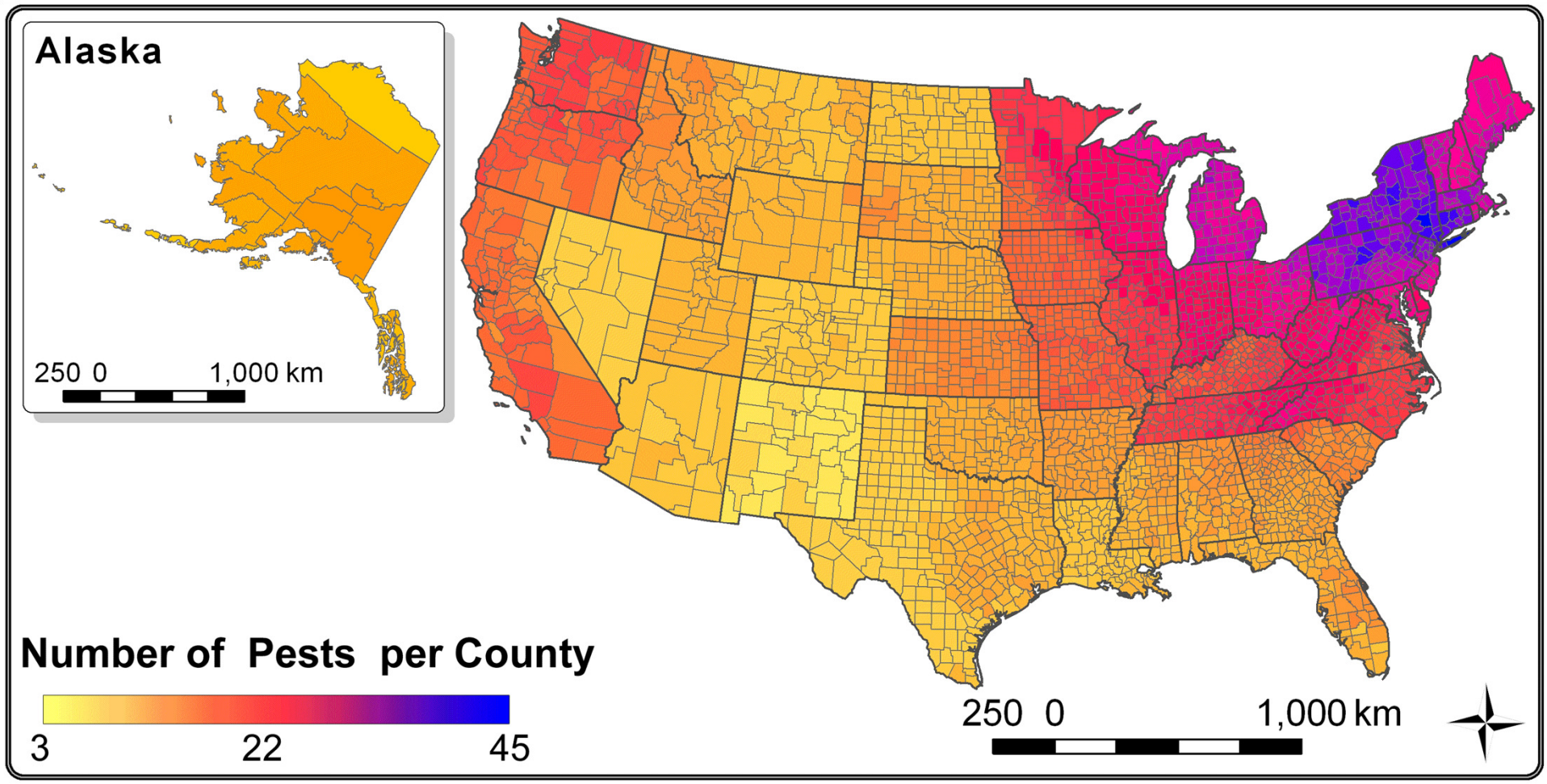
Hazard Trees & Reduced Air Quality

Blocked Signage & Lines of Sight

Tick Borne Diseases

Burns & Rashes

Why does New York take the invasive species threat so seriously?

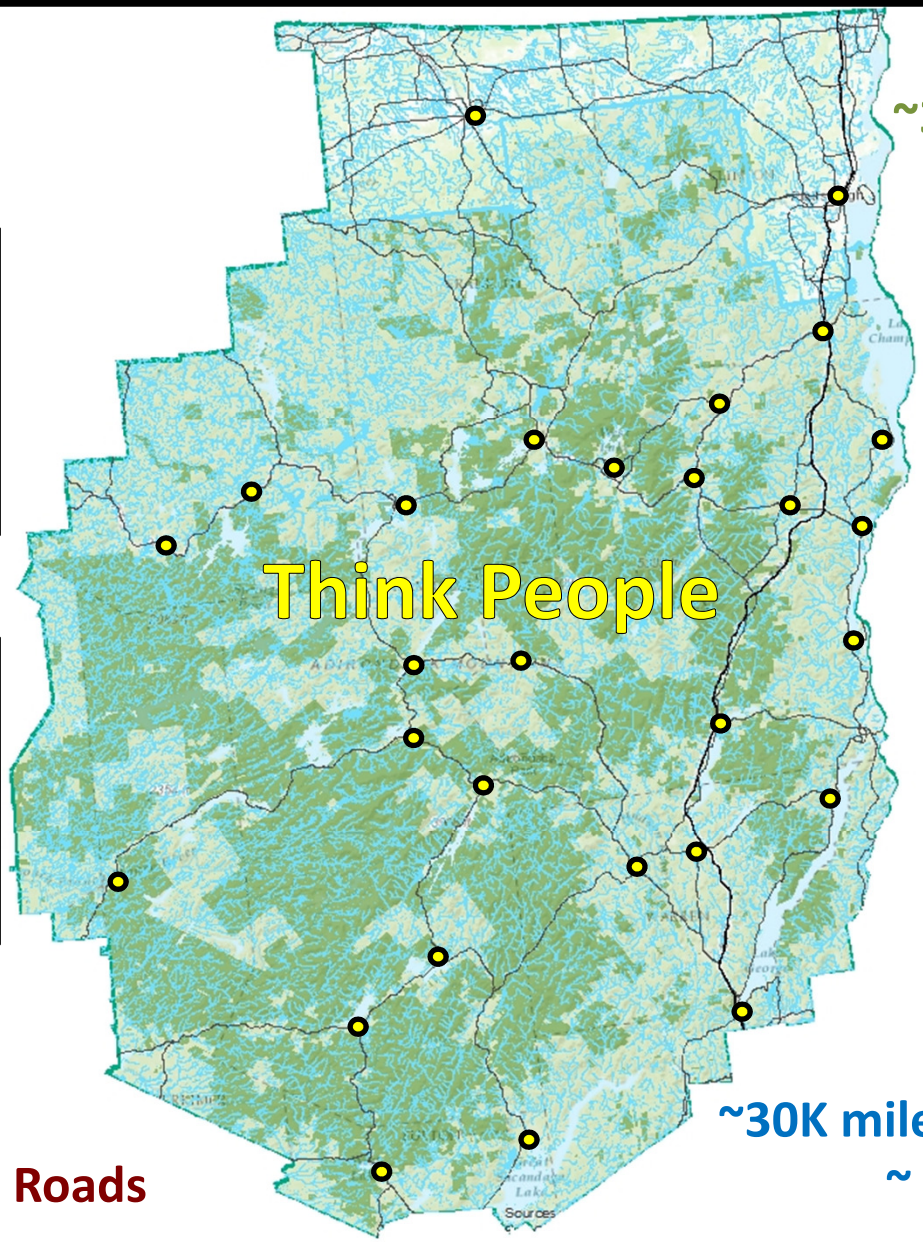


Implications for the Adirondacks

The Adirondacks in a Nutshell

Think BIG
~7.2 million acres

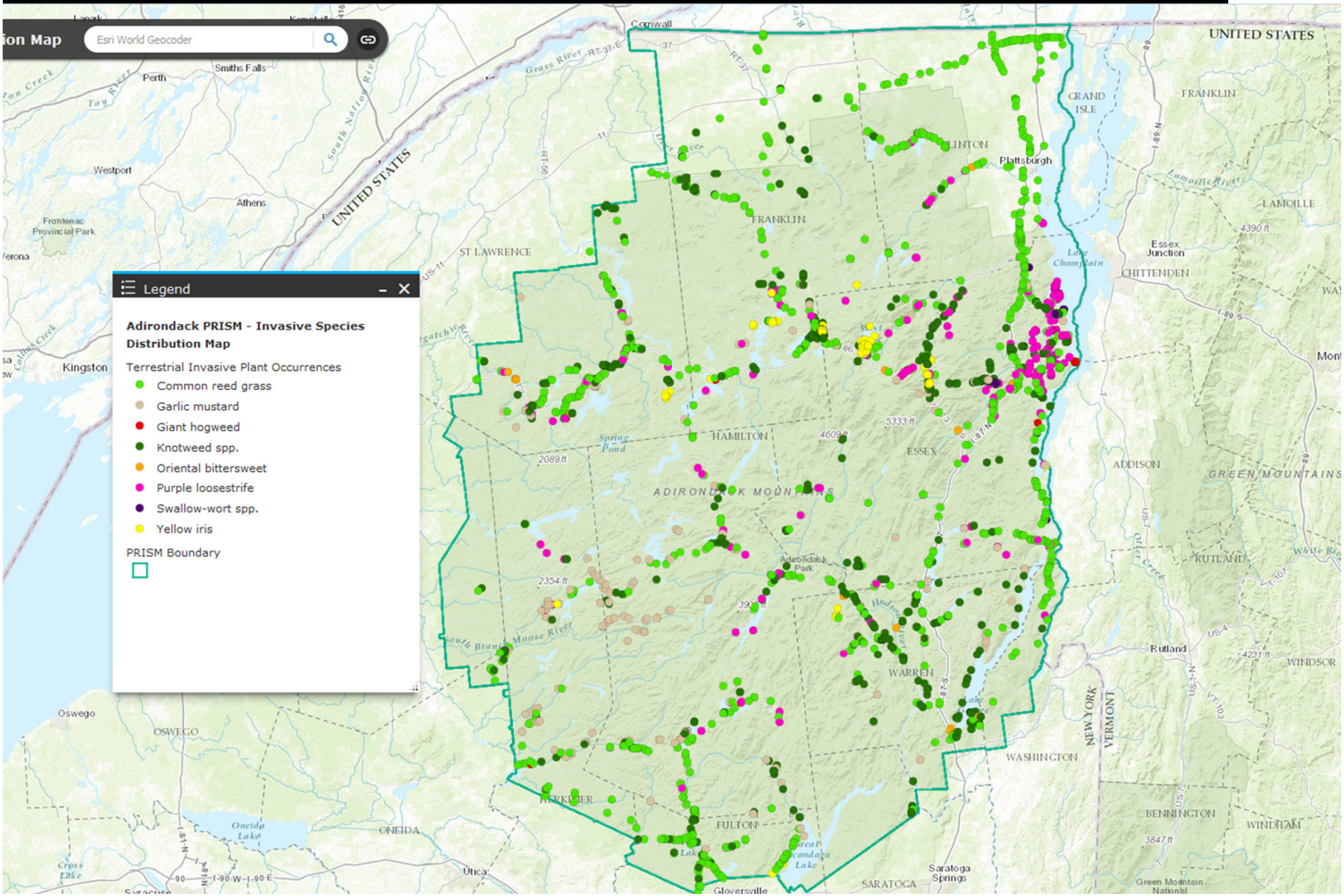
Think REMOTE
~1700 miles of State Roads



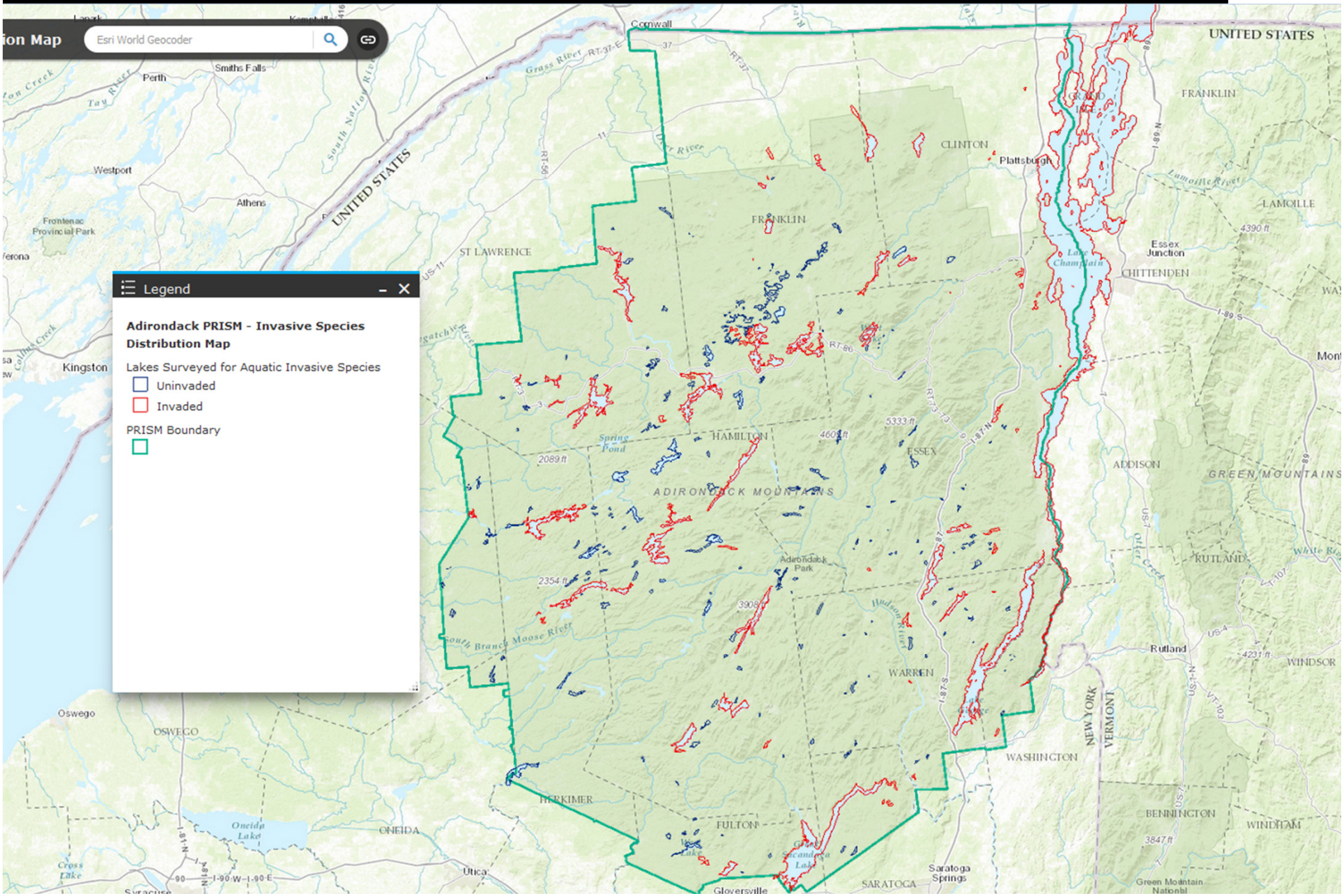
Think Protected
~3.4 Mil. Ac. Forest Pres.

Think WET
~3K Lakes & Ponds
~30K miles of rivers and streams
~ 600K acres of wetlands

Terrestrial IS Distribution



Aquatic IS Distribution



The Case for Action

- Excluding Lake Champlain, only 12 aquatic invasive species (AIS) have been detected within the Adirondack Region. Three out of every four lakes surveyed are still free of AIS

- A newly detected terrestrial invasive plant infestation is usually under .1 acres in size. Infestations are most commonly associated with human disturbance (roads, trails, etc.) and have not yet invaded the interior forest.

- Highly destructive forest pests such as emerald ash borer and hemlock woolly adelgid are still isolated in the region

What is Being Done?

Awareness Building

Educational Events & Trainings

AIS Identification & Survey Trainings

Nearly 2000 people reached through presentations and trainings alone so far in 2017

Over 15000 people reached since 2009

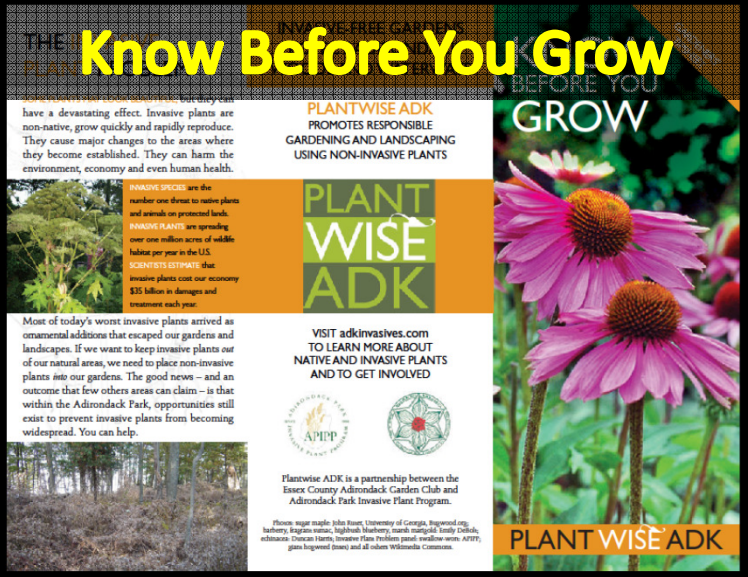
Invasive Plant Identification & Management Trainings

Prevention

Promoting CDD under the Adirondack AIS Prevention Program

www.adkcleanboats.com

Promoting the use of native plants and clean fill in gardening and landscaping



Promoting the use of local firewood for camping and heating

Early Detection

AIS Volunteer Monitoring Program

Backcountry Monitoring Programs

700+ volunteers assisted/assisting with surveillance and early detection efforts.

Rapid Response

Terrestrial & Aquatic Rapid Response Teams

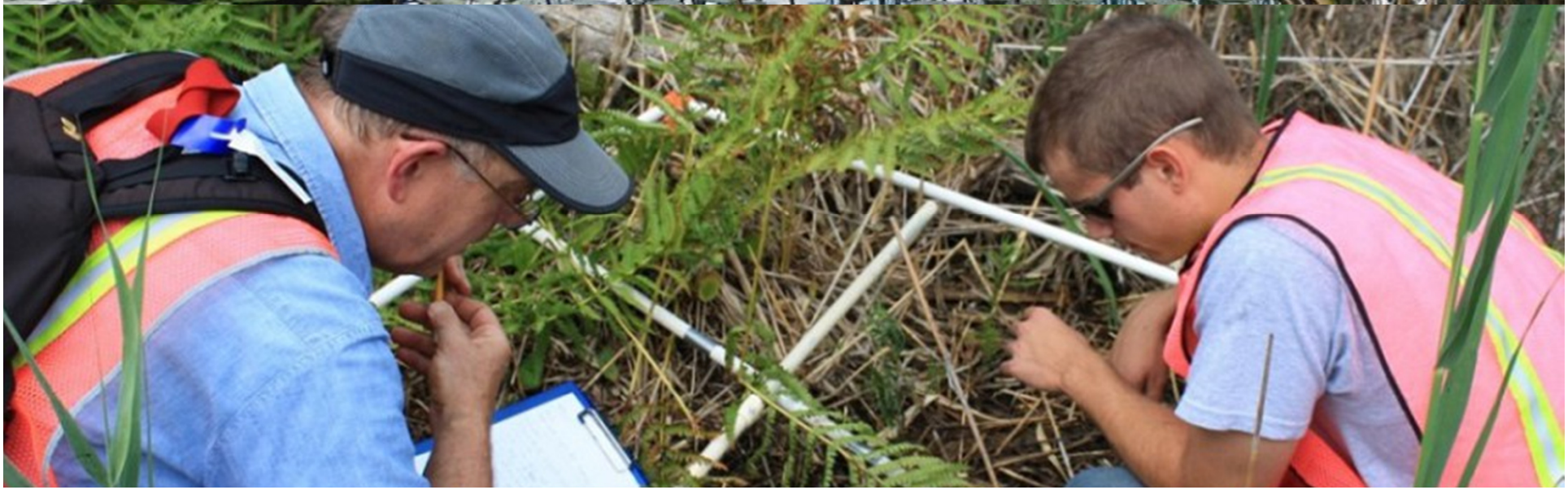
Over 2203 infestations of invasive plants managed since 2011. 471 historically managed infestations documented as having no plants observed.

Surveyed 126 lakes for AIS since 2015. Only 10 documented as having newly existing infestations.

Lower Cherrypatch Wetland - 2003

Lower Cherrypatch Wetland - 2010

Monitoring & Restoration



Data Analysis & Research

Management of invasive Phragmites australis in the Adirondacks: a cautionary tale about prospects of eradication

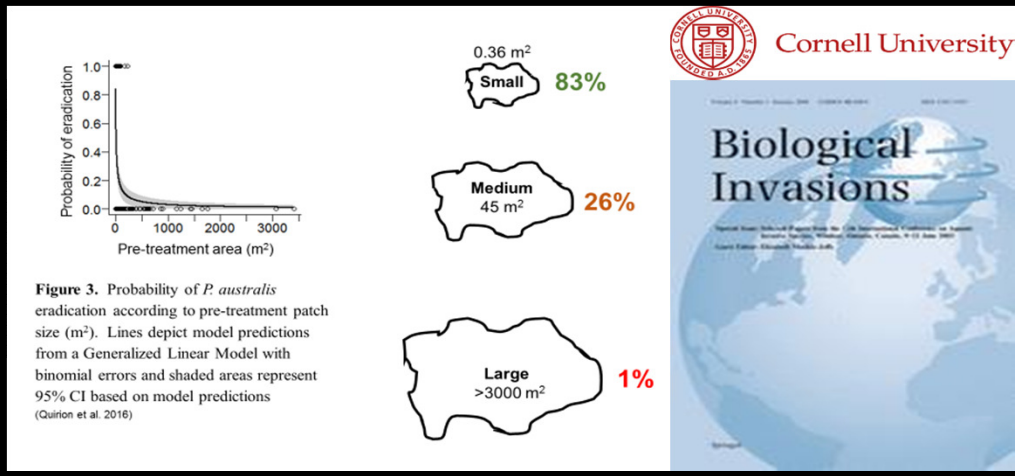
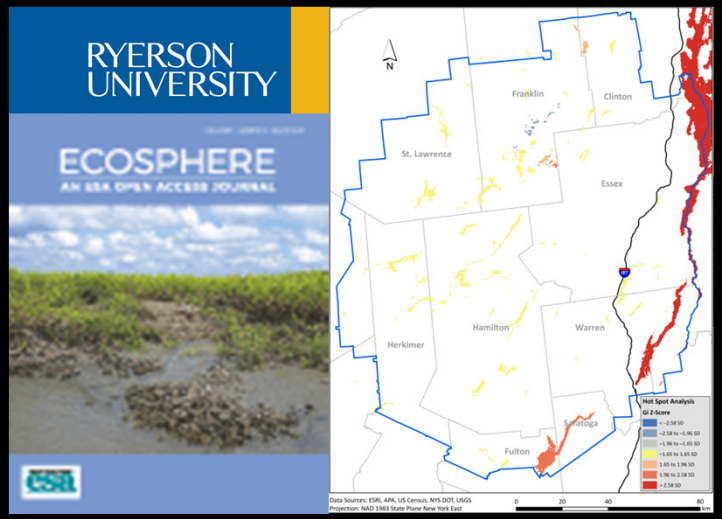


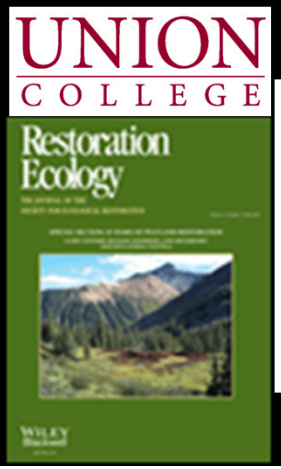
Figure 3. Probability of *P. australis* eradication according to pre-treatment patch size (m²). Lines depict model predictions from a Generalized Linear Model with binomial errors and shaded areas represent 95% CI based on model predictions (Quirion et al. 2016)

Cornell University



Predicting aquatic invasion in Adirondack lakes: a spatial analysis of lake and landscape characteristics

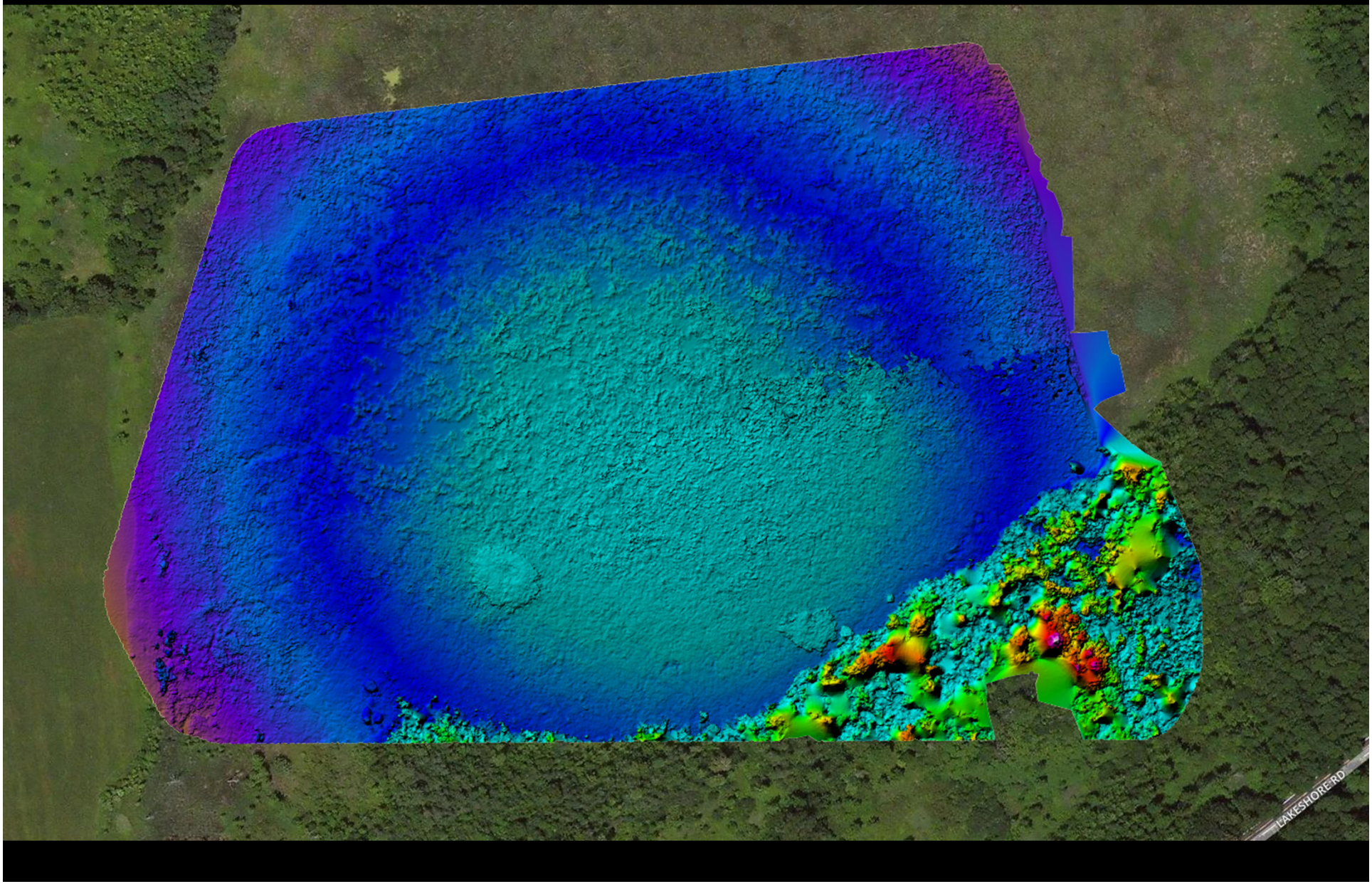
Assessing feasibility in invasive plant management: a retrospective analysis of garlic mustard control



INVASIVE PLANT MANAGEMENT
IPMDAT
DECISION ANALYSIS TOOL

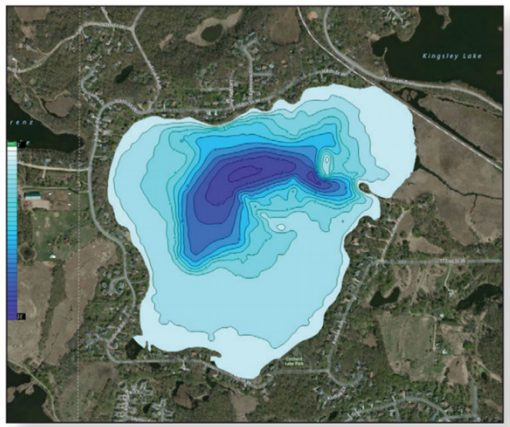
Innovation & Adaptive Change

Remote Sensing Infestations

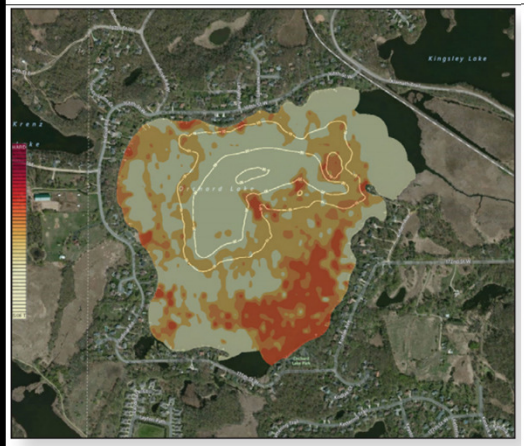


Predicting Lake Vulnerability

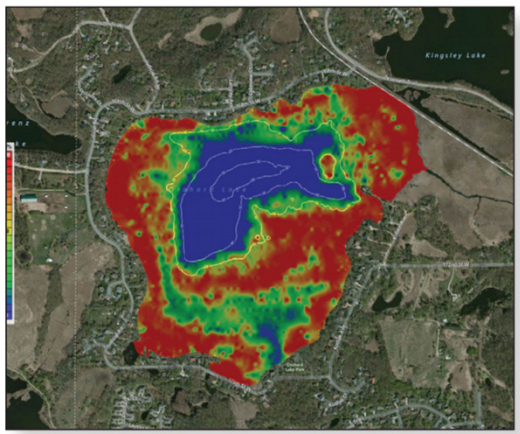
BIOBASE
Aquatic Mapping System



Bathymetry



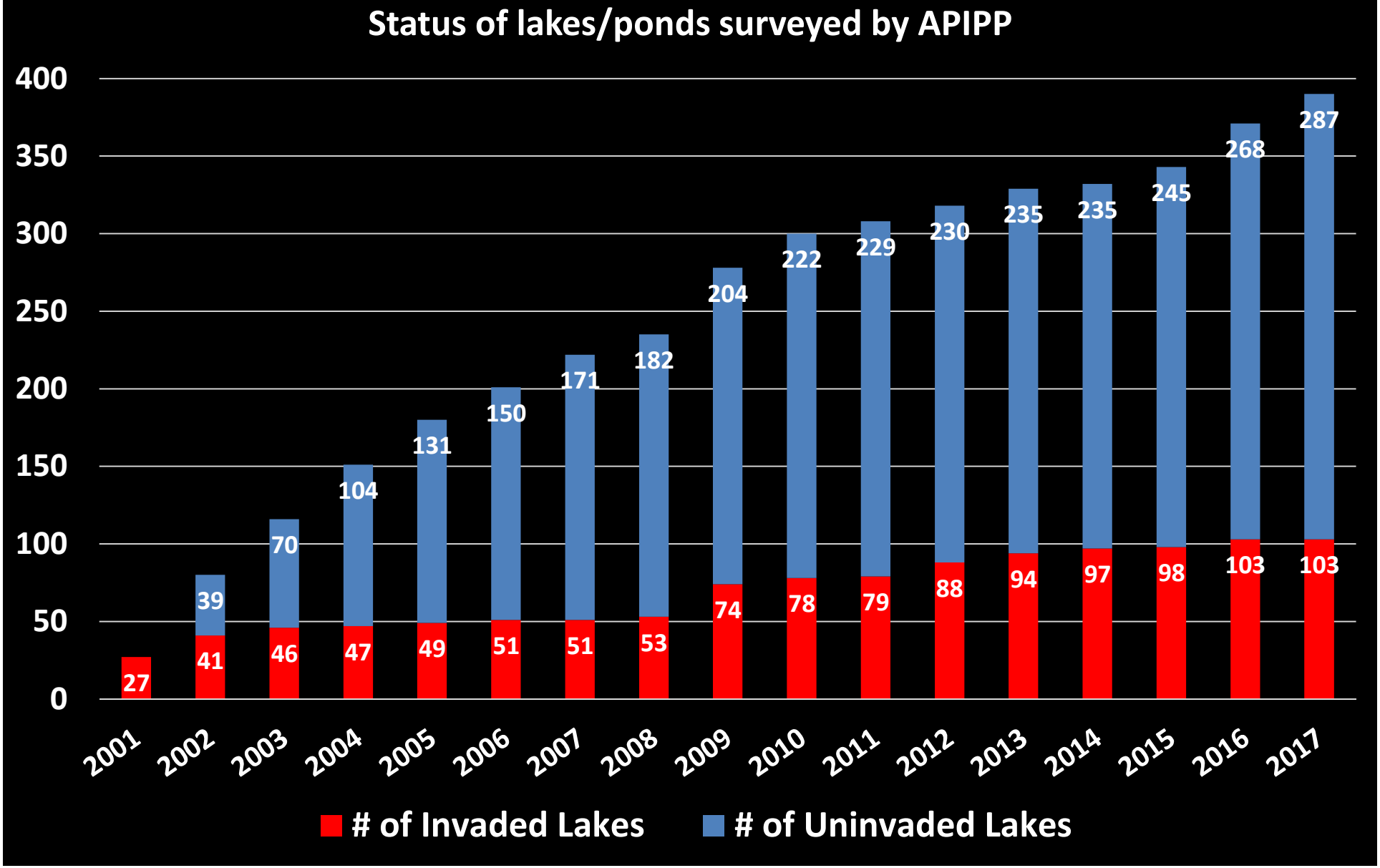
Bottom Hardness



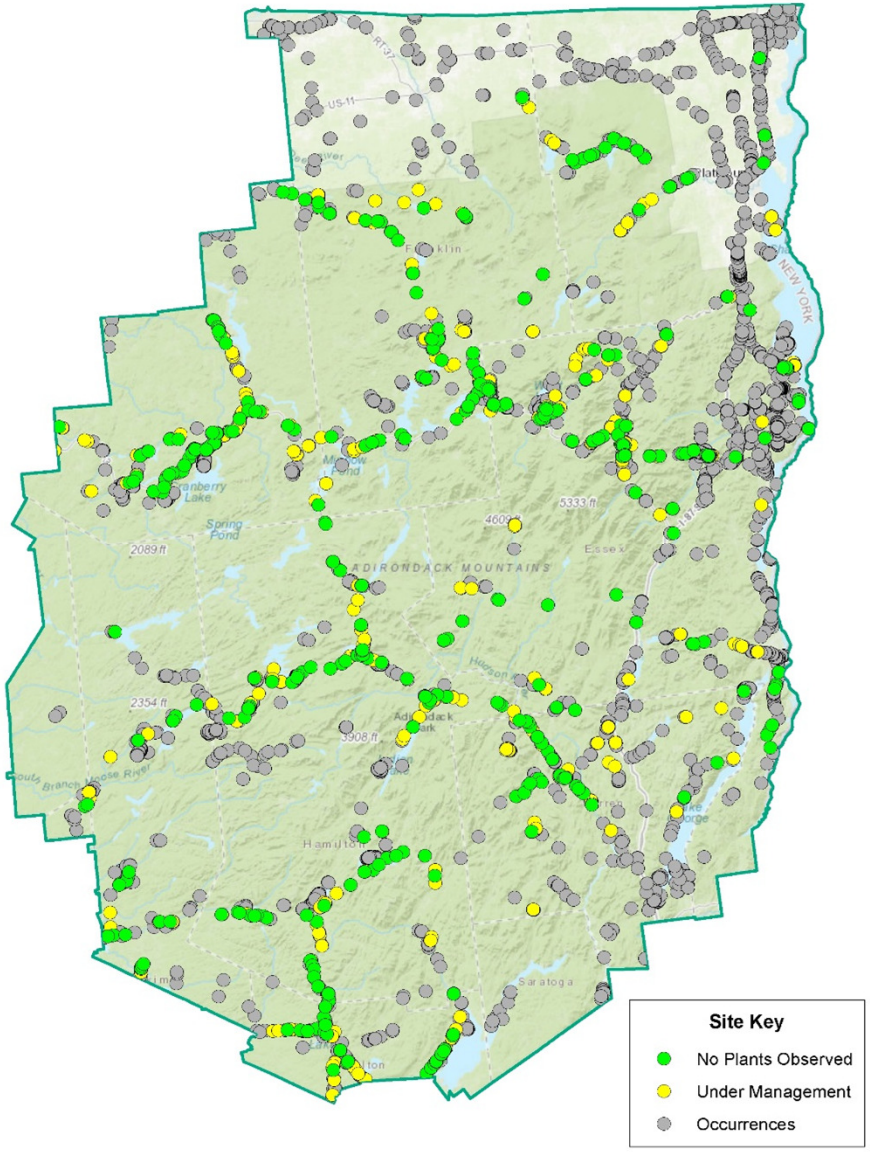
Vegetation Density (% biovolume)

Is it working?

Score Card for Adirondack Waters



Score Card for Adirondack Lands

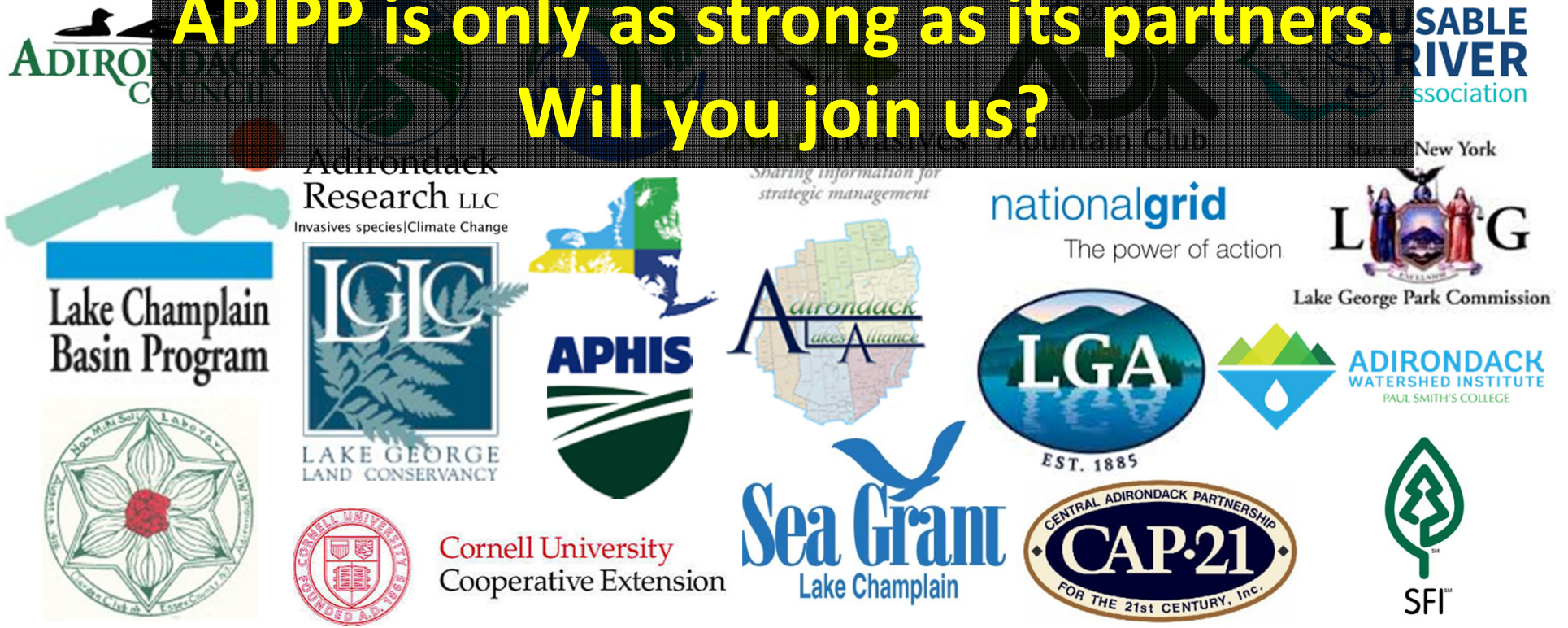


~500 priority infestations actively being managed

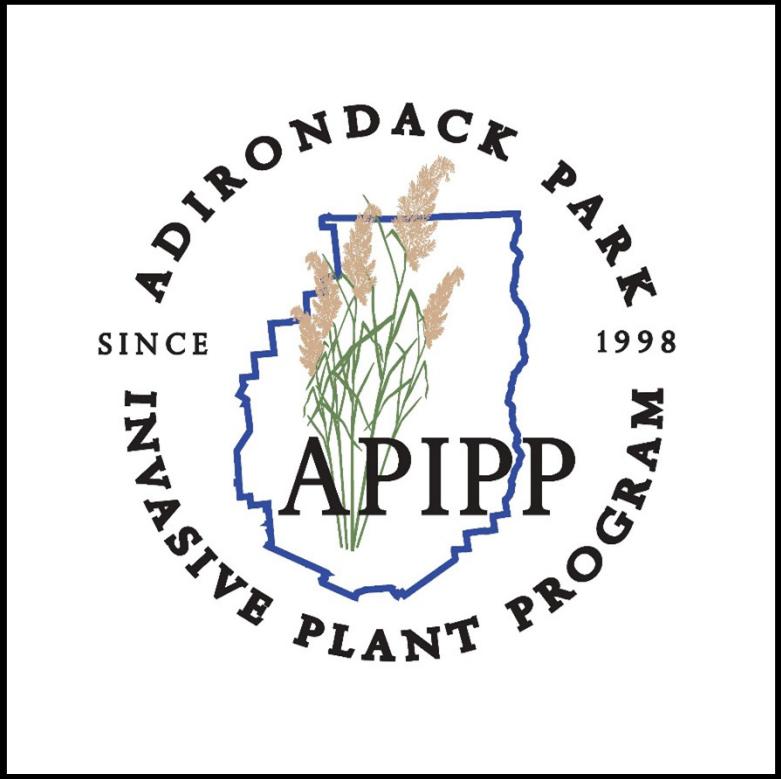
~500 have no invasive species observed or have been deemed eradicated

APIPP is a Partnership Program

APIPP is only as strong as its partners.
Will you join us?



Thank You



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