



# The Adirondack Park Invasive Plant Program



INVASIVE SPECIES  
MANAGEMENT  
ADIRONDACKS

May 13, 2022

# What is the Adirondack Park Invasive Plant Program (APIPP)?

The Adirondack PRISM is one of New York's eight PRISMs



APIPP's mission is to protect the Adirondack region from the negative impacts of invasive species

Four founding partners formed APIPP in 2003; APIPP is hosted by The Nature Conservancy



Funding is provided, in part, by the Environmental Protection Fund as administered by NYSDEC

# Meet the APIPP Team

**Becca Bernacki**  
Terrestrial IS Coordinator



**Brian Greene**  
Aquatic IS Coordinator



**Shaun Kittle**  
Communications Coordinator



**Tammara Van Ryn**  
Program Manager



**Zack Simek**  
Conservation and GIS Analyst



**Adellia Baker**  
Temporary IS Assistant



**...and Starting May 16**

**Megan Grega**  
*Seasonal Forest Pest  
Research Assistant*

**Becca Tamagna**  
*Seasonal Invasive Species  
Management Steward*



# Terrestrial IS Program Goals



Prevent new introductions



Rapidly detect & eradicate new infestations



Manage existing priority infestations to mitigate impacts

# Terrestrial Early Detection and Rapid Response (EDRR) Crew



- Crew of 4 from Invasive Plant Control, Inc.
- 14 Weeks
- In 2021, assessed 1,700+ sites
- In 2021, treated over 500 sites

APIPP annually treats approximately 350 sites on DOT rights-of-way and approximately 125 sites (totaling roughly 11 acres) on Forest Preserve



# Invasive Species Management Stewards 2021



- Surveyed :
  - 38 NYSDEC campgrounds
  - Over 135 recreational access points
- Removed over 15,000 plants
- Inspected emerald ash borer traps
- Surveyed grids for spotted lanternfly and tree-of-heaven
- And much more!



# Knotweed Management Partnership 2021

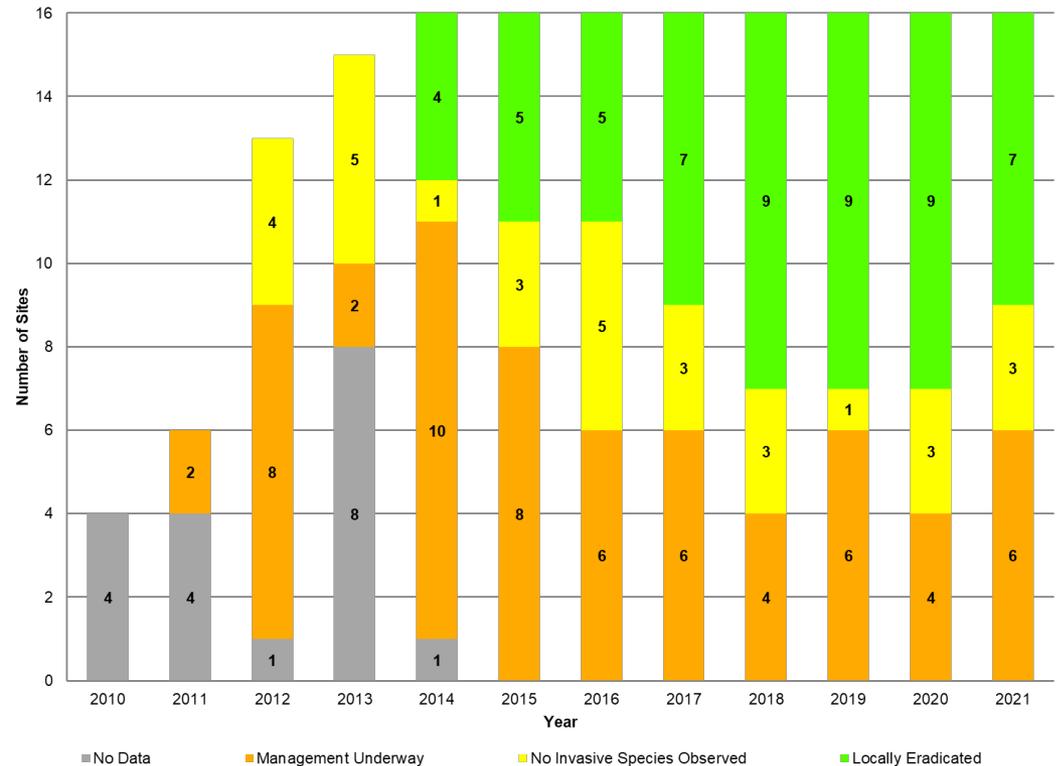
~ 85 landowner and municipal permissions secured by volunteers

~115 sites treated in 2021



# Giant Hogweed 2021

- 16 historic sites
  - 6 had plants present
- 62.5% are free of giant hogweed



# Japanese Stiltgrass 2021

- 1<sup>st</sup> detected in the PRISM in September
- Reported by a landowner in Bolton Landing
- Promptly surveyed and treated



# Hemlock Woolly Adelgid Management: Dome Island

## 857 Trees Treated

with basal bark spray of imidacloprid and dinotefuran.

2020

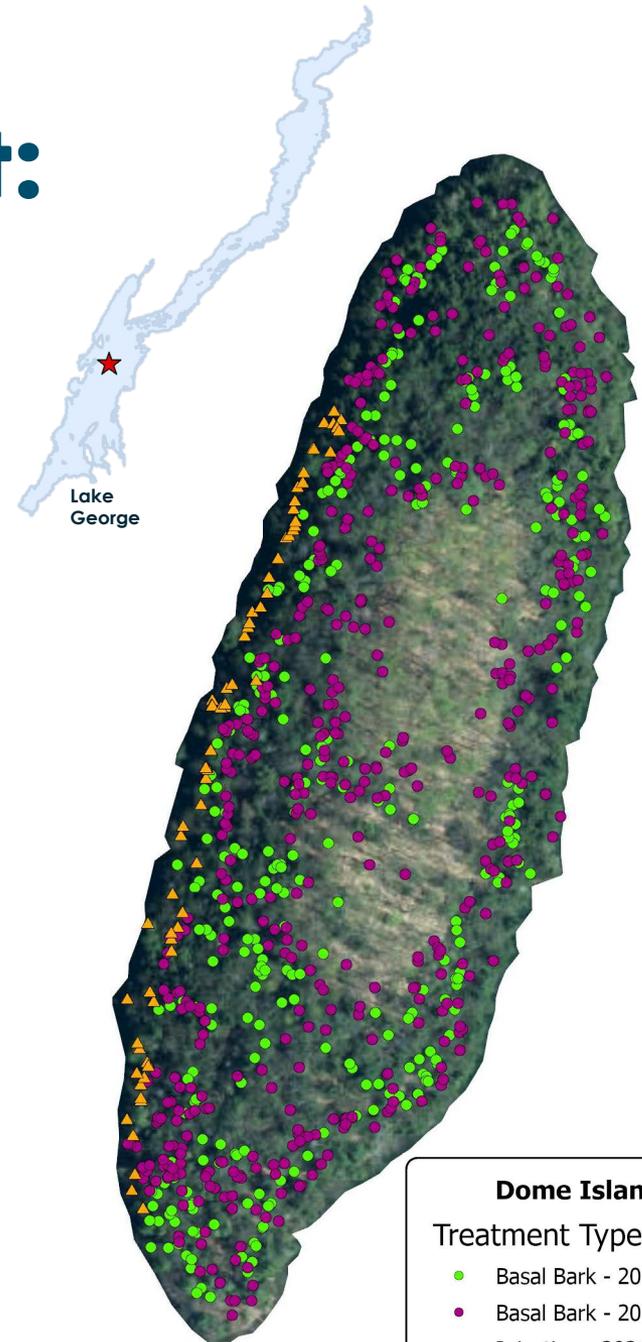
342  
TREES

2021

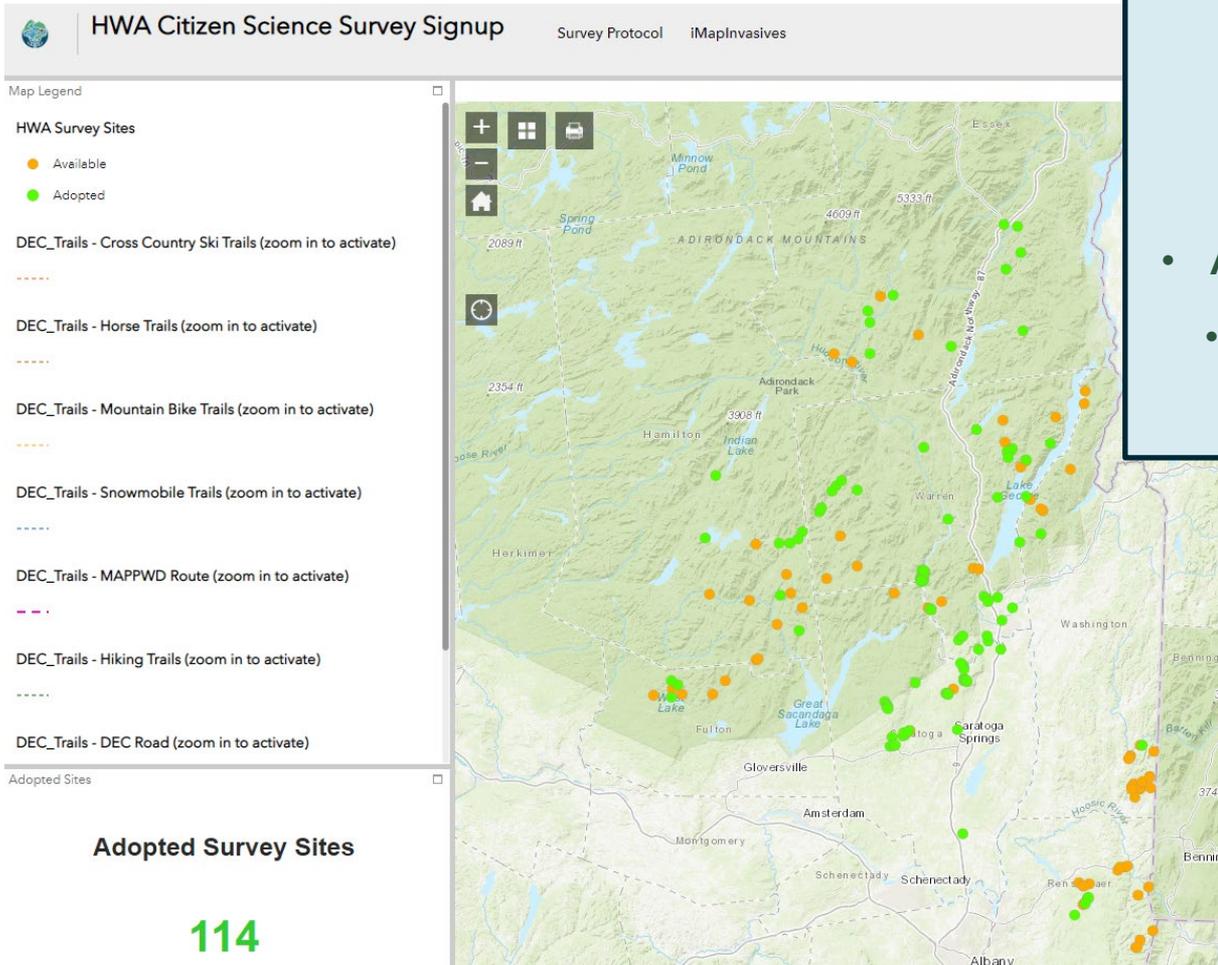
515  
TREES

## 71 Shoreline Trees Treated

with injection of imidacloprid



# Forest Pest Hunter Volunteers



- **25** Volunteers
- **114** Trails Adopted
- **Over 400** Observations Entered Into iMap
- **Almost 30** Confirmed Reports
- **Over 400** Hours Donated
- **Thank You!**



LAKE GEORGE  
LAND CONSERVANCY



INVASIVE SPECIES  
MANAGEMENT  
CAPITAL REGION



# Research and Innovation

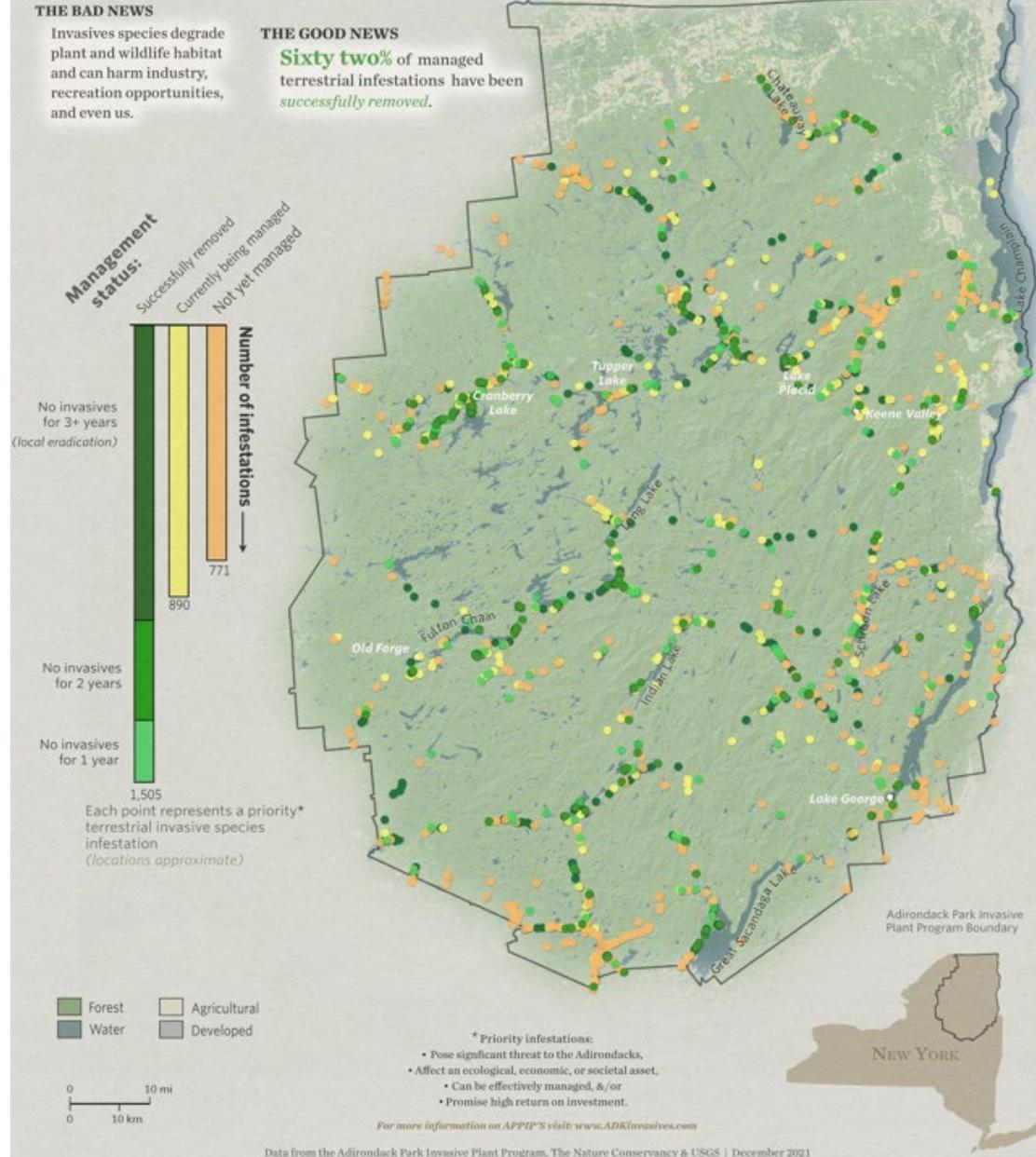


- Emerald ash borer monitoring plots in black, white, and green ash
- Using drones to survey for invasive species
- Expanding early-detection of HWA with aerial imaging and eDNA

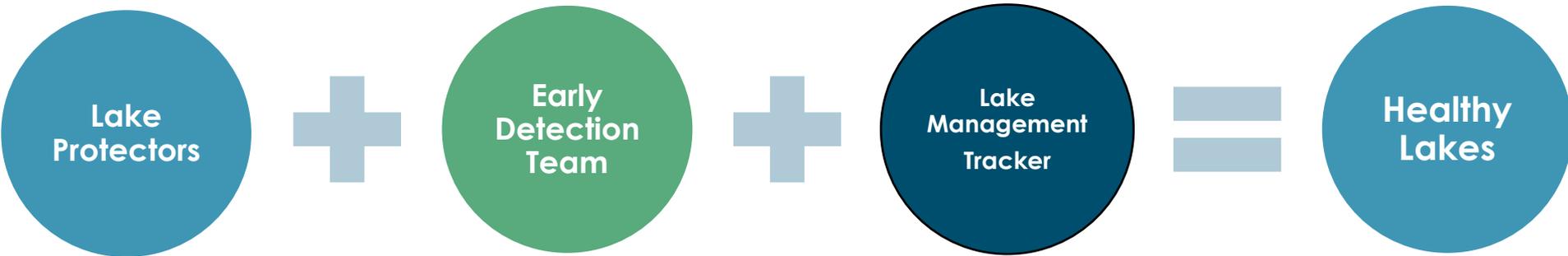


# Results!

- Invasive species successfully removed from 1,505 of 2,395 managed sites > 62%
- 2021 research shows sites passively retore to native habitat

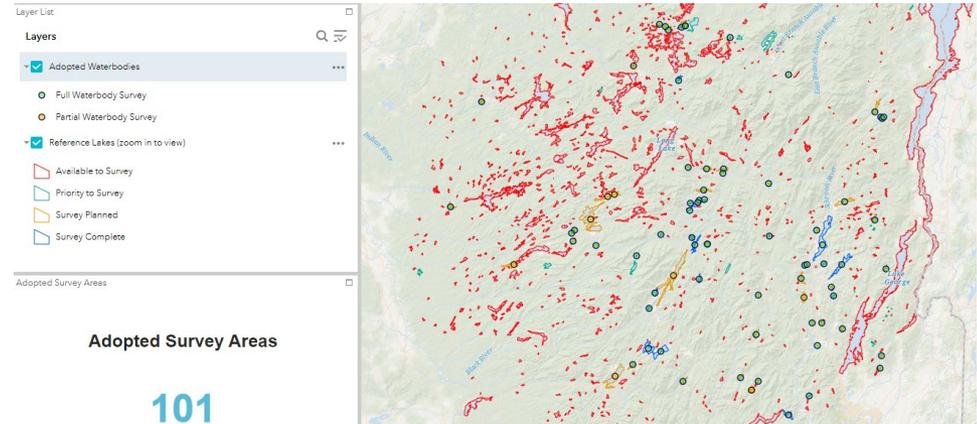


# Aquatic Invasive Species Monitoring



# Lake Protectors

- 2021 marked 20<sup>th</sup> Year!
- Volunteers
  - Attend training
  - Sign up to survey a lake
  - Report findings



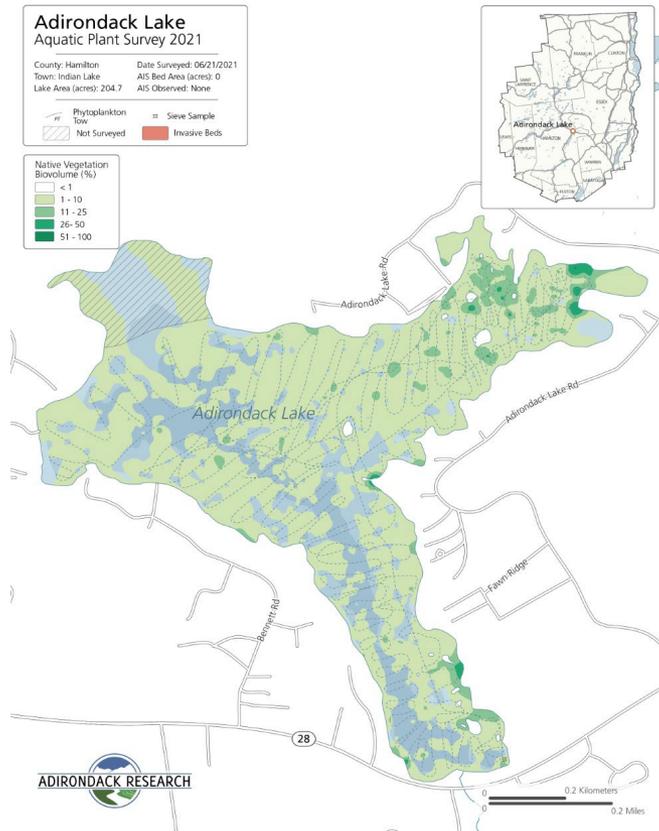
## Lake Protectors Spotlight: Debbie Schwarting

We caught up with one of the original Lake Protectors who is on her twentieth year of monitoring for invasive species! Debbie shared some stories about her incredible dedication to Adirondack lakes.



# Early Detection Team

- Surveys 30-50 lakes each year
- Rotates among three regions



APIPP currently contracts with Adirondack Research to provide a trained team and prepared a complete report of lakes surveyed.



# Lake Management Tracker

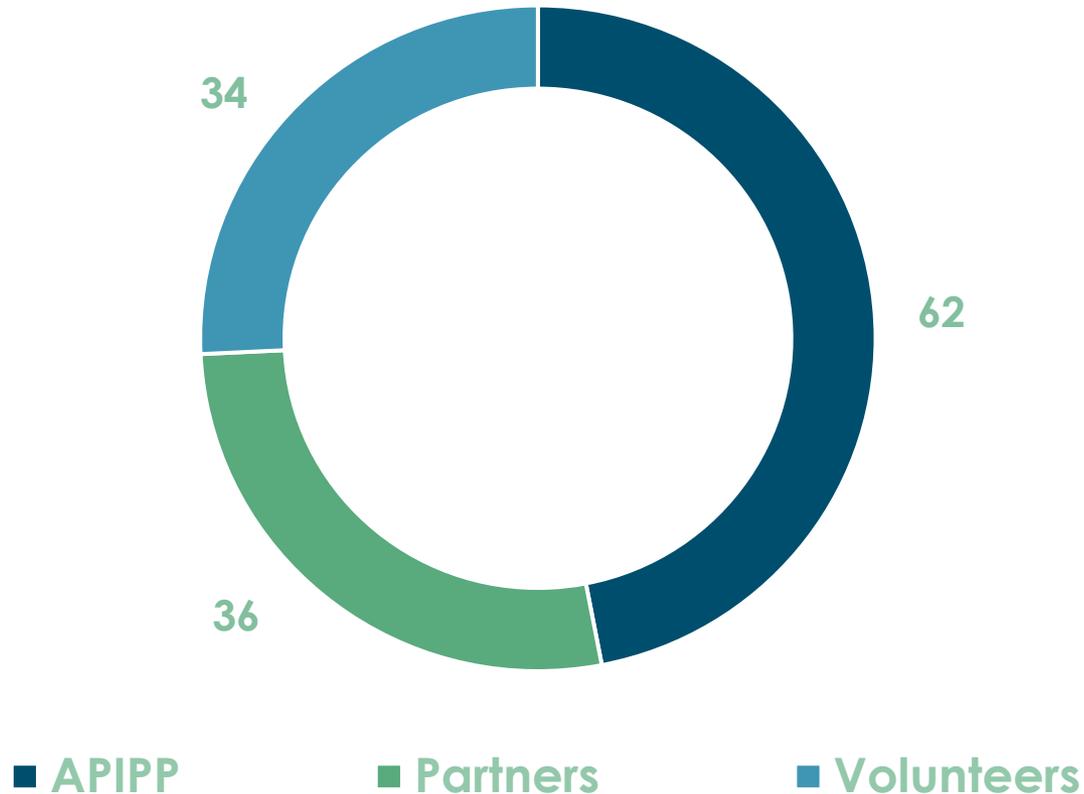
- Entering fifth year
- 9 lakes have participated
- Volunteers collected over 1,600 observations in 2021 to assess AIS management success



Photo by Heidi Kretser

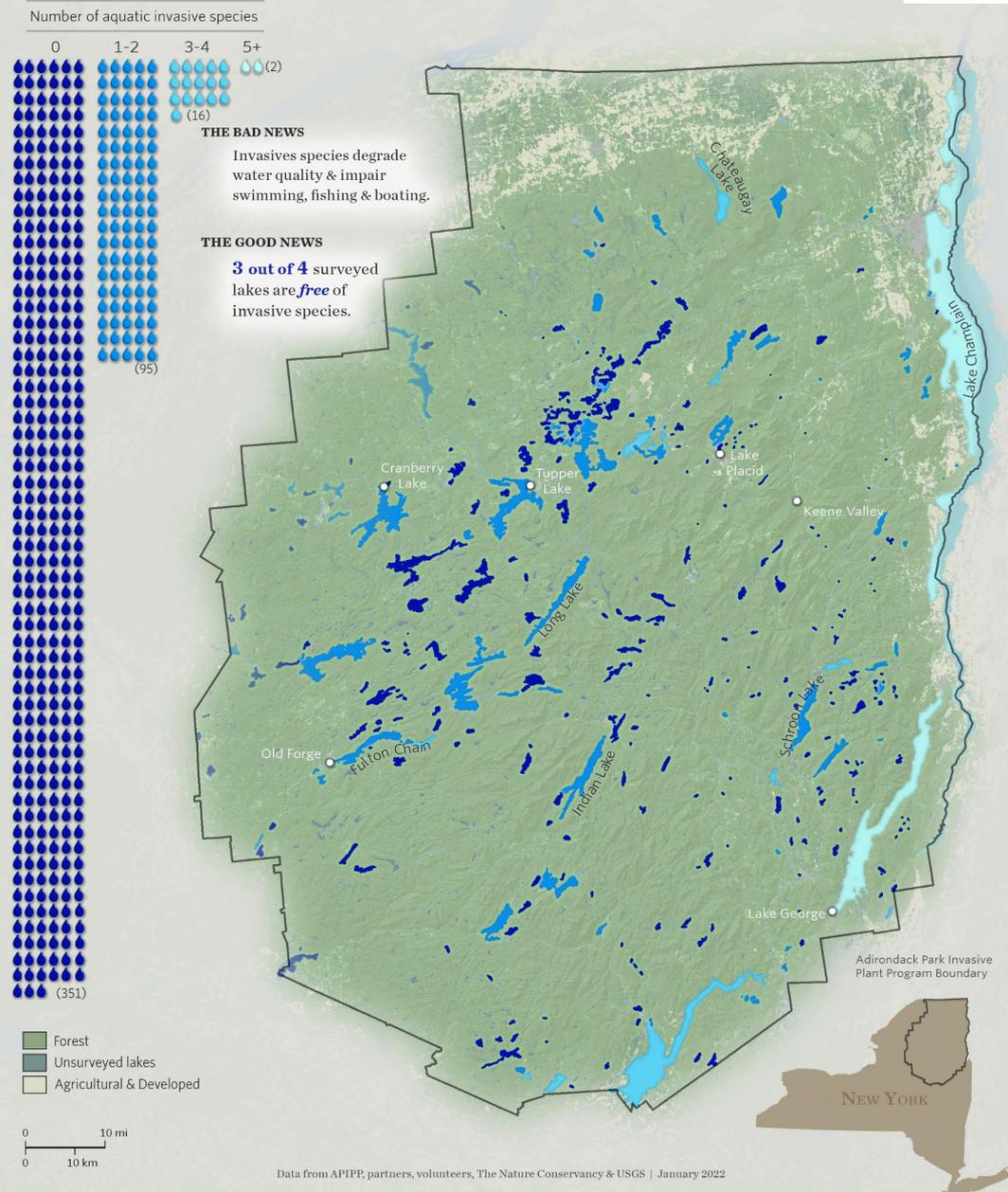


# 2021 AIS Surveys Reported



# Results!

- 464 lakes have been monitored in twenty years
- Over 75% of lakes are AIS free
- Regional knowledge about distribution of AIS



# Research and Innovation



- Lake Champlain boat launch pilot management project
- eDNA sampling



# Community Engagement

**CLEAN, DRAIN, DRY DIAGRAM TO BE PLACED HERE**

**HOW DO INVASIVE SPECIES SPREAD?**

**Most often it is because of us.** Every day human activities are the primary way invasive species spread. Many plants and animals have potential to become invasive if introduced to new regions.

When boating, fishing, paddling, and swimming, you can unintentionally transport invasive plants and animals from lake to lake.

Approximately 75% of Adirondack waterways are free of invasive species. You can help keep them this way by following the **law and gear** always cleaning, draining, and drying boats and gear before visiting different lakes and rivers.

**CLEAN** of visible plants, animals, and mud from all equipment before leaving the water. **DRAIN** watercraft bilge, livewell, motor, and other water filled compartments. **DRY** all boats and gear for at least five days. **Off** wash boats with hot water and dry with hand towels before reuse.

**USE** certified bait from a local dealer or collect bait where you are fishing. **DISPOSE** of unused bait, worms, and fish parts in the trash - never dump live bait into the water or on land.

Visit [www.ADKInvasives.com](http://www.ADKInvasives.com) to learn more about invasive species and how you can help protect the lakes and rivers you love.

**THE ADIRONDACK PARK INVASIVE PLANT PROGRAM**

The Adirondack Park Invasive Plant Program (APIPP) is a program of the Nature Conservancy in New York and funded by the New York State Department of Environmental Conservation. Our mission is to protect the Adirondack region from the negative economic, environmental, and public health impacts of invasive species.

Since 1998, APIPP and our many dedicated partners have worked to limit the introduction and spread of invasive plants and animals to the Adirondack region through comprehensive education, prevention, and strategic management projects.

Interested in learning more? APIPP can connect you to education, conservation, and volunteer opportunities throughout the region.

[WWW.ADKINVASIVES.COM](http://WWW.ADKINVASIVES.COM)

**INVASIVE SPECIES MANAGEMENT**  
ADIRONDACKS

The Nature Conservancy

PO Box 65, Keene Valley, NY 12943  
(518) 576-2082

New York State Department of Environmental Conservation

Funding for this project was provided in part by the Environmental Protection Fund as administered by the New York State Department of Environmental Conservation.

**PROTECT YOUR WATERS**  
FROM HARMFUL INVASIVE SPECIES

**WHAT ARE INVASIVE SPECIES?**

Invasive species can be plants, insects, fish, or animals. They can be found on the land in the water, or even in our backyards.

These species are not native to our region and cause harm to ecosystems, human health, and vital economic sectors such as farming, forestry, and tourism.

Invasive species compete with native plants and animals for important resources such as space, food and light. Once an infestation is established, aquatic invasive species can clog lakes, dominate wetlands, ruin drinking water infrastructure, cause human health issues, or push out native wildlife.

You can protect the lakes and rivers you love by following the tips in this brochure when boating, fishing, paddling, and swimming in the Adirondacks.

Together we can conserve the water quality, recreational opportunities, wildlife habitat, and economic vitality of the Adirondacks.

Thank you!

**SIMPLE STEPS TO PREVENT THE SPREAD OF INVASIVE SPECIES WHEN YOU CAMP, HIKE, BIKE, AND HAVE FUN IN THE ADIRONDACKS**

[WWW.ADKINVASIVES.COM](http://WWW.ADKINVASIVES.COM)

**WHAT IS THE ADIRONDACK PARK INVASIVE PLANT PROGRAM (APIPP)?**

APIPP is a Partnership in Regional Invasive Species Management programs (PRISM), managed by the Nature Conservancy in New York and one of eight PRISMs funded by the New York State Department of Environmental Conservation. Our mission is to protect the Adirondack region from the negative economic, environmental, and public health impacts of invasive species.

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Invasive species compete with native plants and animals for space, nutrients, and/or water. Once an infestation is established, invasive species damage forests, destroy wildlife habitat, take over fields and wetlands, dominate waterways, ruin food crops, and cause human health problems.

You can protect the places you love by following the tips in this brochure when hiking, hunting, camping, biking, and horseback riding in New York's Adirondack region.

Together we can conserve the recreational opportunities, scenic beauty, wildlife habitat and economic vitality of the Adirondacks.

Visit [www.ADKInvasives.com](http://www.ADKInvasives.com) to learn more about invasive species and all the ways you can help protect the lands you love.

Thank you!

**SIMPLE STEPS TO PREVENT THE SPREAD OF INVASIVE SPECIES WHEN YOU CAMP, HUNT, HIKE, BIKE, AND HAVE FUN IN THE ADIRONDACKS**

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**HOW DO INVASIVE SPECIES SPREAD?**

**Most often it is because of us.** Every day human activities are the primary way invasive species spread. Many plants and animals have the potential to become invasive if introduced to new regions.

When hiking, hunting, biking, camping or just walking our dogs in the woods, we can unintentionally transport plant seeds and invasive insects into and around the Adirondacks.

To prevent the spread of invasive species when you **PLAY** in the Adirondacks, always **CLEAN** footwear, gear, vehicles, bikes, and pets of mud, seeds, and plants before and after each outdoor adventure. **STAY** on trails to avoid carrying invasive seeds into new areas.

**BUY IT WHERE YOU BURN IT.** Prevent the spread of harmful forest pests that threaten trees - buy local firewood and never bring firewood from home. Find certified, heat treated firewood sellers and learn about local regulations at [www.Dontmovefirewood.org](http://www.Dontmovefirewood.org).

**PREVENT THE SPREAD OF INVASIVE PLANTS AND ANIMALS WHEN YOU BOAT, SWIM, FISH, AND PADDLE THE ADIRONDACKS**

**CLEAN**  
ALL PLANTS, MUD, AND DEBRIS OFF OF BOATS, TRAILERS, WADERS, AND FISHING GEAR

**DRAIN**  
ALL WATER FROM BOATS, MOTORS, BAIT BUCKETS, TANKS AND HOLES

**DRY**  
BOATS AND GEAR FOR FIVE DAYS OR POWER WASH USING HOT WATER BEFORE VISITING NEW WATERWAYS

**DISPOSE**  
OF UNWANTED BAIT AND WORMS IN THE TRASH

**FREE WASH STATIONS**  
CLEAN, DRINK, DRY IS THE LAW AND HIGH PRESSURE, HOT WATER BOAT WASH STATIONS ARE AVAILABLE FOR FREE THROUGHOUT THE ADIRONDACKS. FIND A SITE NEAR YOU [WWW.ADKINVASIVES.COM](http://WWW.ADKINVASIVES.COM)

**LEARN HOW TO PROTECT THE LAKES YOU LOVE BY VISITING: [WWW.ADKINVASIVES.COM](http://WWW.ADKINVASIVES.COM)**

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**PROTECT YOUR WATERS**  
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**INVASIVE SPECIES MANAGEMENT**  
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**In 2021 Distributed:**  
 To 116 businesses & organizations  
 38 towns, 65 campgrounds, all  
 AWI inspection stations, and  
 150 NYSDEC kiosks  
 ~44,000 brochures to partners  
 and businesses  
 ~ 2,700 posters to partners and  
 businesses

**PREVENT THE SPREAD OF INVASIVE PLANTS & ANIMALS WHEN YOU CAMP, HUNT, HIKE, BIKE, AND HAVE FUN IN THE ADIRONDACKS**

**CLEAN**  
DIRT AND DEBRIS FROM FOOTWEAR, PETS, BIKES, AND GEAR AFTER EVERY OUTDOOR ADVENTURE

**STAY**  
ON DESIGNATED TRAILS AND ROADS TO AVOID PICKING UP OR SPREADING INVASIVE PLANT SEEDS

**USE LOCAL**  
HAY FOR HORSES AND CARRY OUT LEFTOVER ANIMAL FEED

**BUY IT WHERE YOU BURN IT.**  
STOP THE SPREAD OF HARMFUL FOREST PESTS AND FOLLOW THE LAW, DO NOT MOVE UNTREATED FIREWOOD INTO OR AROUND NY. BUY FIREWOOD CLOSE TO WHERE YOU'LL BURN IT. LEARN MORE AT: [WWW.DONTMOVEFIREWOOD.ORG](http://WWW.DONTMOVEFIREWOOD.ORG)

**LEARN HOW TO PROTECT THE PLACES YOU LOVE BY VISITING [WWW.ADKINVASIVES.COM](http://WWW.ADKINVASIVES.COM)**

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# Prevention Messaging

## Clean, Drain, Dry



## Boot Brush Stations

### GIVE INVASIVE SPECIES THE BRUSH OFF

SOIL, SEEDS, AND PLANT PARTS CARRIED ON SHOES, BIKES, PETS, AND GEAR CAN SPREAD INVASIVE PLANTS AND ANIMALS TO NEW PLACES. USE THE BRUSHES ON THIS STATION TO CLEAN FOOTWEAR AND BIKES WHEN ENTERING AND LEAVING TRAILS TO HELP STOP THE SPREAD OF INVASIVE SPECIES. THE FOREST AND RIVER THANK YOU!



#### WHAT'S THE PROBLEM?

Invasive species compete with native plants and animals for space, nutrients, and water. They can damage forests, limit food for wildlife, take over fields and wetlands, dominate waterways, and even cause human health problems. Together we can conserve habitats, recreational opportunities, and the scenic beauty of the Adirondacks.

#### WILD PARSNIP

*Pastinaca sativa*

**OUCH!** Skin contact with wild parsnip's caustic sap can result in severe blistering that lasts for several weeks. While you hike, bike, and enjoy the out-of-doors, be aware of this plant that thrives in full sun along roadsides, open fields, fence rows, and disturbed areas. Reaching 2 to 5 feet tall, these large, celery-like, branched leaves have serrated edges and emerge alternately along the central stalk. Adult plants can bloom June through August displaying many clusters of tiny, yellow flowers arranged in flat, disk-like arrays at the top of long stalks. Wild parsnip flowers resemble other common "umbel" flowers such as Queen Anne's Lace, Yarrow or Dill. However, it can be distinguished from these common native and introduced herbs by its great height and broad leaf shape.



Photo: Leslie J. Manning, University of Wisconsin

WILD PARSNIP IN FLOWER

Wild Parsnip Found with Ice 13 Boat

Photo: Jessup, 1997, Egan

WILD PARSNIP: LARGE, CELERY-LIKE LEAVES

#### GARLIC MUSTARD

*Alliaria petiolata*



Photo: David C. Gibson, Michigan Native Plant Society, egyptian.org

Not only does this early spring herb outcompete native understorey plants on the forest floor, but it also releases chemicals harmful to the soil organisms that trees need to thrive. Blooming in May, tiny white flowers develop a massive number of seeds that can live up to seven years in the soil. Depending on the age of this biennial plant, garlic mustard will look different. First year plants develop a rosette of kidney-shaped leaves, whereas second year plants have multiple, tall stems with triangular, sharply toothed leaves.

#### PURPLE LOOSESTRIFE

*Lythrum salicaria*



Photo: Peter Bock, COA, Via Wikimedia Commons

From July to September, this showy perennial is easily identified by its tall magenta flower spikes. Purple loosestrife reproduces at a prolific rate with mature plants releasing up to 27 million seeds per year. Tolerating a wide range of wet growing conditions, nutrients, and pH levels, it thrives in floodplains, marshes, riverbanks, bogs, riparian areas, ditches, and lakeides. Purple loosestrife affects wetland habitats by outcompeting native plants for growing space, altering water flows, and decreasing biodiversity.

#### KNOTWEEDS

*Reynoutra spp.*



Photo: Anthonis, CC BY-SA, Wikimedia Commons

Knotweed grows quickly and forms dense stands that can take over forest edges, stream banks, roadways, and yards. Thick root systems spread out from parent plants to form dense mats that outcompete native shrubs and wildflowers for resources. Its broad, heart-shaped leaves shade out adjacent plants, preventing other species from growing. Knotweed is so tough, it can grow through asphalt, brick, and pipes to cause expensive infrastructure damage. Mature plants can reach heights of more than 10 feet tall.

#### FOLLOW THESE SIMPLE STEPS TO PROTECT THE LANDS YOU LOVE:

##### CLEAN

Get dirt and debris from footwear, pets, bikes, and gear after every outdoor adventure.



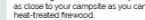
##### STAY

on designated trails and roads to avoid picking up or spreading invasive seeds or eggs.



##### DON'T MOVE FIREWOOD

Stop the spread of harmful forest pests by not moving untreated wood. Buy firewood as close to your campsite as you can or buy heat-treated firewood.



##### BE ON THE LOOKOUT

Report any sightings using iMapInvasives, a free, easy-to-use, citizen science tool, available online at [www.nyimapsinvasives.org](http://www.nyimapsinvasives.org) or downloaded for your smartphone at the Apple App Store or Google Play by searching for 'iMap'.



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# Educational Programming

WED JUNE 9TH  
7:00 TO 8:15 PM



THE ADIRONDACK PARK INVASIVE PLANT PROGRAM & ADIRONDACK WATERSHED INSTITUTE PRESENT:

**LOVE YOUR LAKES:  
LEAVE NO TRACE  
WHEN PADDLING  
THE ADIRONDACKS**



Adirondack  
**ADK**  
Mountain Club

FREE &  
HOSTED OVER ZOOM

[WWW.ADKINVASIVES.COM/EVENTS](http://WWW.ADKINVASIVES.COM/EVENTS) TO RSVP

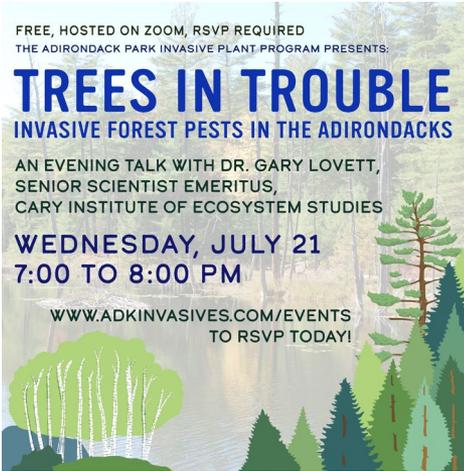
FREE, HOSTED ON ZOOM, RSVP REQUIRED  
THE ADIRONDACK PARK INVASIVE PLANT PROGRAM PRESENTS:

**TREES IN TROUBLE**  
INVASIVE FOREST PESTS IN THE ADIRONDACKS

AN EVENING TALK WITH DR. GARY LOVETT,  
SENIOR SCIENTIST EMERITUS,  
CARY INSTITUTE OF ECOSYSTEM STUDIES

WEDNESDAY, JULY 21  
7:00 TO 8:00 PM

[WWW.ADKINVASIVES.COM/EVENTS](http://WWW.ADKINVASIVES.COM/EVENTS)  
TO RSVP TODAY!



- In 2021
  - 11 workshops
  - 2 partner meetings
  - >1,800 attendees

THE ADIRONDACK PARK INVASIVE PLANT PROGRAM PRESENTS:

**BACKYARD INVASIVES:**  
SPECIES ID, CONTROL, & MANAGEMENT  
TIPS TO PREP YOUR GARDEN FOR FALL



THURSDAY, SEPTEMBER 30TH  
10:00 - 11:30 AM

FREE, HOSTED ON ZOOM, RSVP REQUIRED

[WWW.ADKINVASIVES.COM/EVENTS](http://WWW.ADKINVASIVES.COM/EVENTS)  
TO REGISTER!



LGC LAKE GEORGE  
LAND CONSERVANCY

LAKE GEORGE LAND CONSERVANCY PRESENTS:  
FREE, REGISTRATION REQUIRED

**MANAGING & SCOUTING FOR  
HEMLOCK WOOLLY ADELGID  
IN THE ADIRONDACKS:**



THURSDAY, OCTOBER 21  
10:00 AM TO 3:30 PM

*Hosted at Camp Wakpomee with  
field training in the Lake George  
Wild Forest, Fort Anne, NY*

3.5 CATEGORY 1 CONTINUING EDUCATION  
CREDITS OFFERED FROM THE  
SOCIETY OF AMERICAN FORESTERS

[WWW.LGLC.ORG/EVENTS-AND-PROGRAMS](http://WWW.LGLC.ORG/EVENTS-AND-PROGRAMS)  
TO REGISTER

- In 2022
  - 15 events from January – April
  - >700 attendees

# Questions?

**APIPP connects more than 30 partners and 100 volunteers across the Adirondack PRISM to protect the Adirondack region from the negative impacts of invasive species**

