

2008 Annual Report

Prepared by

Hilary Oles, Director

Steven Flint, Terrestrial Invasive Species Project Coordinator

Tyler Smith, Aquatic Invasive Species Project Coordinator

Adirondack Park Invasive Plant Program

The Adirondack Partnership for Regional Invasive Species Management

Adirondack Chapter of The Nature Conservancy

Keene Valley, New York

The Adirondack Park Invasive Plant Program (APIPP) values the contributions of more than 30 cooperating organizations and more than 300 volunteers who participate in the program and share their ideas, time, and resources to protect the Adirondacks from invasive species.

We were proud to celebrate the program's tenth anniversary in 2008 and honored to receive a contract with the Department of Environmental Conservation for Environmental Protection Funds that will support APIPP's core coordinating services.

We would like to recognize the contributions of the Invasive Plant Council (IPC) of New York State's staff, board, and members. With the formation of the New York Invasive Species Council and Advisory Committee, the IPC dissolved its organization in 2008. We are grateful for the foundation laid by the IPC which advanced invasive species planning and action.

Thank you.

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Mission

The Adirondack Park Invasive Plant Program (APIPP) serves as the Adirondack Partnership for Regional Invasive Species Management (PRISM) whose mission is to protect the Adirondack region from the negative impacts of non-native invasive species. Initiated in 1998 and housed by the Adirondack Chapter of The Nature Conservancy, the program coordinates two regional projects that integrate education, monitoring, and management strategies: the Aquatic Invasive Species Project and the Terrestrial Invasive Species Project.

Goals

- *Prevent new introductions of invasive species.*
- *Coordinate a region-wide early detection rapid response program to detect and eradicate new infestations.*
- *Manage existing priority infestations to mitigate impacts.*

Distribution Summary

Aquatic

- At least 53 waterways have aquatic invasive plants in the Adirondack Park (Map 1). In seven seasons, more than 371 APIPP Invasive Plant Volunteers surveyed 216 distinct waters (Map 2). With your assistance, APIPP is successfully establishing baseline information about the distribution of aquatic invasive plants in the Adirondack region. Thank you for your substantial contribution to invasive species prevention and detection!

Terrestrial

- At least 701 sites of APIPP's target terrestrial invasive plants are documented in the Park. This number includes sites that have an isolated occurrence of an invasive plant and also sites with multiple occurrences, for example, *multiple* garlic mustard infestations occur in the forest understory along six miles of North Lake Road within the Black River Wild Forest Unit.

The following activities were accomplished in 2008 through the Aquatic Invasive Species Project and the Terrestrial Invasive Species Project with the assistance of partner organizations, resident groups, and volunteers:

2008 Training sessions

Aquatic

- Provided training sessions in invasive and native aquatic plant identification and monitoring techniques. Partners who assisted the sessions included Larry Eichler, Darrin Fresh Water Institute (DFWI); Scott Kishbaugh, New York State Department of Environmental Conservation (NYS DEC); Lenny Croote, Caitlin Stewart, and Elizabeth

Mangle, Hamilton County Soil and Water Conservation District (HCSWCD). Thank you for making these sessions a success!

- Trained 62 participants in 2008 (Figure 1): 25 participants in Bolting Landing, 18 in Saranac Lake, and 19 in Old Forge.
- Distributed training manuals and secondary education resources for volunteer use.

Terrestrial

- Trained DEC's Student Conservation Association team members, two APIPP DEC SCA invasive plant stewards, and two DOT student intern stewards.

Early Detection

Aquatic

- Aquatic Project volunteers surveyed for Eurasian watermilfoil, water chestnut, curlyleaf pondweed, fanwort, European frog-bit, and yellow floating heart. The Project continues to elevate awareness about other plant threats listed below, which have not yet been detected in the PRISM boundaries. There are native look-alikes, and web links are cited for species information and identification tips.

Brittle or slender naiad (*Najas minor*)

<http://www.weedscience.ncsu.edu/aquaticweeds/facts/apfs006-99.pdf>

Starry stonewort (*Nitellopsis obtusa*)

<http://www.co.cayuga.ny.us/wqma/weedswatchout/plants/starrystonewort.htm>

Parrotfeather (*Myriophyllum aquaticum*)

<http://plants.ifas.ufl.edu/myaqpic.html>

Hydrilla (*Hydrilla verticillata*)

<http://aquat1.ifas.ufl.edu/hyvepic.html>

Brazilian elodea (*Egeria densa*)

<http://aquat1.ifas.ufl.edu/egdepic.html>

For a good comparison of hydrilla, Brazilian elodea, and look alike

<http://www.des.state.nh.us/wmb/exoticspecies/HydrillaLook-alikes.pdf>

Terrestrial

- In the late 90s, Terrestrial Project partners identified four primary invasive plants present in the Park that had high likelihoods of spreading: Japanese knotweed, purple loosestrife, common reed grass, and garlic mustard. Early detection surveys are ongoing for these and several additional species that have isolated infestations in the Park: yellow iris, swallow-wort spp., giant hogweed, and Indian cup-plant. For a more complete list of invasive terrestrial plants present in the region, log on to <http://adkinvasives.com/PlantList.html>.

The Project continues to elevate awareness about other plant threats listed below, which have not yet been detected within the PRISM boundaries.

Japanese stiltgrass (*Microstegium vimineum*), not yet detected in the Park

<http://nbii-nin.ciesin.columbia.edu/ipane/icat/browse.do?specieId=12>

Mile-a-minute vine (*Polygonum perfoliatum*), not yet detected in the Park

<http://nbii-nin.ciesin.columbia.edu/ipane/icat/browse.do?specieId=13>

Potential Plant Threats – “Watched Species”

Aquatic

- The plants listed below are native to the U.S. and may be native to some areas of New York. They are listed as non-native invasive species in some regions of the U.S., are reported in several waters in the region, and can grow locally aggressive.

Variable-leaf milfoil (*Myriophyllum heterophyllum*)

<http://www.umext.maine.edu/onlinepubs/htmpubs/2530.htm>

Southern naiad (*Najas guadalupensis*)

<http://aquat1.ifas.ufl.edu/nagupic.html>

Swollen bladderwort (*Utricularia inflata*)

<http://plants.usda.gov/java/profile?symbol=UTIN>

Terrestrial

- The plant listed below is not native to the U.S. and reported to grow aggressively in riparian settings in some New England states. One occurrence is reported in the northern Adirondacks. Additional information is required to determine its invasibility in the region.

Himalayan balsam (*Impatiens glandulifera*)

<http://nbii-nin.ciesin.columbia.edu/ipane/icat/browse.do?specieId=58>

2008 Monitoring

Aquatic – 7th Season

- Coordinated regional volunteer monitoring for aquatic invasive plants.
- Since the start of the Aquatic Project in 2002, the number of waters monitored annually has nearly doubled and volunteer participation has nearly tripled (Figure 2).
- In 2008, 148 volunteer monitors and partner staff surveyed 90 Adirondack waterways (Table 1, Figure 3).
- Accrued more than 600 volunteer monitoring hours.
- Volunteer recruitment and retention remains high (Figure 4). Since 2002, the program has retained an annual average of 63 core volunteers and recruited an annual average of 53 new volunteers.
- Collaborated with partners to map and assess milfoil infestations in Putnam Pond and Meacham Lake.
- Assessed bladderwort growth and distribution in Little Long Lake.
- Eurasian watermilfoil was reported in two new waterbodies in 2008: Highlands Ledge Lake and Paradox Lake*. *A certified lake manager and volunteers surveyed Paradox Lake for several years, detecting no invasive plants; it is believed that this infestation is relatively new and with a quick response, may be controlled.
- Water hyacinth was not detected in 2008 in the Raquette River near Potsdam after it was detected, and removed, in 2007.

Terrestrial

- Accrued more than 31,636 miles conducting Early Detection Rapid Response activities.
- Throughout the season, staff spent 820 hours driving 31,636 miles to conduct Early Detection Rapid Response activities.

- Collaborated with DEC's Invasive Species Specialist Wayne Blanchard to inventory and map the 37 DEC land-based campgrounds in the park.
- Surveyed and monitored the following DEC Forest Preserve Units: Blue Mountain WF, Ferris Lake WF, Black River WF, Moose River Plains WF, Saranac Lakes WF, Sargent Ponds WF, William C. Whitney WA, Hoffman Notch WA, Jessup River WF, West Canada Lake WA, Siamese Ponds WA, Lake George WF, Cranberry Lake WF, Vanderwhacker Mountain WF, Shaker Mountain WF, Debar Mountain WF, High Peaks WA, St. Regis Canoe Area, and Chazy Highlands Complex Area.
- Surveyed and monitored the following DOT Right of Ways: 3, 8, 9, 9N, 10, 28, 28N, 30, 56, 73, 86, 365, and 374.
- Surveyed State Routes 190 and 374 and inventoried three OPRHP Parks (Macomb Reservation, Cumberland Bay, Point Au Roche) in the rooftop counties.

2008 Management

Aquatic

- Hired a seasonal field coordinator, Steve Langdon, who implemented the second phase of the European frog-bit eradication project on the Grasse River near Lampson Falls. The infestation was less than one quarter acre in size. Thirty-six 5-gallon buckets of plant material were harvested in 2007; seven buckets were harvested in 2008.
- Collaborated with Paul Smith's College Adirondack Watershed Institute to begin the first of three years of Eurasian watermilfoil management in Follensby Clear Pond. Divers removed 479 bags of milfoil over 21 days (582 hours). The main infestation was near the canoe launch; satellite plants were harvested at the boat ramp and Spider Creek.
- Began planning for response to newly discovered Eurasian watermilfoil infestations in Paradox Lake.

Terrestrial

- Managed 81 NYS DOT ROW sites park-wide. Over 7,200 pounds of gleaned invasive plant material was removed from the ROWs.
- 32 DOT ROW infestations previously managed in 2005/2006 show no signs of reinfestation.
- Implemented containment and suppression controls at 299 sites.
- Provided garlic mustard controls at numerous infestations totaling approximately 26 acres.
- Implemented manual management controls within the following NYS DEC Forest Preserve Units: William C. Whitney WA, Hoffman Notch WA, Blue Mountain WF, Ferris Lake WF, Moose River Plains WF, Black River WF, Shaker Mountain WF, St. Regis Canoe Area, Saranac Lakes WF, West Canada WA, Jessup River WF, Debar Mountain WF, and Lake George WF.
- Implemented 4 pilot projects included within the *Inter-Agency Guidelines For Implementing Best Management Practices for the Control of Terrestrial Invasive Plant Species on Forest Preserve Lands in the Adirondack Park*: Shaker Mountain WF – common reed; St. Regis Canoe Area – Tatarian honeysuckle; Vanderwhacker Mountain WF – Japanese knotweed; Siamese Ponds WA – yellow iris.

- Assisted NYS DEC Operations with controls at 26 infested Forest Preserve campgrounds. Results are compiled in the *NYS DEC Bureau of Recreation Division of Operations Invasive Species Adaptive Management Guiding Document Adirondack Forest Preserve Campgrounds 2008 Report*.
- Implemented stem injection controls at yellow iris infestations located at Vly Pond, Boquet River, East Branch Au Sable River, and Mt. Arab Lake.
- Implemented controls at 16 sites in coordination with APIPP's NYS Biodiversity Research Institute project.
- 30 volunteers accrued more than 332 stewardship hours.
- Assisted the members of Inlet's Regional Invasive Plant Program to control 6 Japanese knotweed infestations.

Distribution Analysis

Aquatic

- The number of “weed-free” lakes surveyed by APIPP volunteers is more than three times that of infested lakes (Figure 5).
- Fewer than half of the 53 infested waters in the Park have state boat launches:
 - 65 DEC launches in the Park (approximately)
 - 23 waters infested
 - 5 waters with “watched species” – variable-leaf watermilfoil
 - 30 waters surveyed by volunteers, no infestations observed
 - 7 waters still to be surveyed

Terrestrial

- Analysis of the jurisdictional distribution of terrestrial invasive plants:
 - DEC
 - 23 Forest Preserve units have one or more occurrences of invasive plants, and approximately 155 occurrences have been documented.
 - Of 37 land-based campgrounds, 24 have invasive plants.
 - DOT
 - 272 sites documented with jurisdictional ROW.
 - Private lands and complex jurisdictional “gray” areas
 - 173 sites documented.

Voucher specimens

Aquatic

- Collected, identified, pressed, mounted, and labeled samples of invasive plants observed in surveyed waterbodies. A voucher specimen verifies the presence of the invasive plant, serves as a comparison for additional plant samples, and aids plant research activities. A voucher specimen is needed only if invasive or suspicious plants are observed (Table 2).

Terrestrial

- The Terrestrial Invasive Species Project does not maintain an herbarium of voucher specimens by site.

Data storage and Website development

Aquatic

- Updated the Adirondack Park Aquatic Invasive Plant Project database. The database is a permanent record of the distribution and abundance of aquatic invasive plants in the Adirondack Park as well as management activities on individual waterbodies.
- The development of digitized lake maps for waterbodies surveyed in 2008 is still underway due to moving GIS project files from the Adirondack Park Agency to the Adirondack Chapter of The Nature Conservancy this winter.
- Updated data, maps, and text on the Adirondack Park Invasive Plant Program website, <http://www.adkinvasives.com>. The site provides Program information, invasive plant descriptions, images, and survey data and maps from the Adirondack region.

Terrestrial

- Updated the Adirondack Park Terrestrial Invasive Plant Project database.
- Collaborated with DOT to update the Park-wide, county, and USGS quad maps illustrating terrestrial invasive plant occurrences from 2007. 2008 data will be updated soon.

Below is a summary of APIPP's achievements in 2008 that included both the Terrestrial Invasives Project and the Aquatic Invasives Project.

APIPP seasonal stewardship

- Offered three seasonal stewardship positions to Kelsey Englehard and Andrew Ross, Student Conservation Association Forest Preserve Stewards (DEC funded); and, Steve Langdon, Grasse River Steward (DEC funded).
- Collaborated with DEC Operation's Invasive Species Specialist Wayne Blanchard.
- Coordinated with DOT's two student interns.
- Collaborated with SUNY Plattsburgh and the Ausable River Association on an Environmental Protection Agency wetlands grant.
- Collaborated with the Boquet River Association on a Lake Champlain Basin Program grant for invasives mitigation and biocontrol.

APIPP co-sponsored, or was invited to participate in, training sessions for the following audiences:

- New York State Guides Association
- Paul Smith's College Watershed Stewardship Program (WSP) stewards
- Volunteer Lake Steward Program (*co-sponsored with the Paul Smith's College WSP*)
- Adirondack Curriculum Project
- Lower Saranac Lake and Little Long Lake shoreowners
- NYS DOT Warrensburg Residency
- Rayonier, Inc. and Fountain Forestry
- Schroon Lake Milfoil Scout Program

2008 APIPP Education efforts

- Prepared and distributed APIPP's 2007 Annual Report.
- Hosted two forest pest identification training sessions for partners.
- Helped to design signage designating infested waters.
- Helped to celebrate the 3rd Annual Adirondack Invasive Species Awareness Week.
<http://www.adkinvasives.com/InvasiveSpeciesAwarenessWeek.html>
- Distributed two newsletters:
http://adkinvasives.com/documents/ROOTSSpringSummer08_000.pdf
<http://adkinvasives.com/documents/ROOTSFallWinter08.pdf> .
- Collaborated with groups on invasive species awareness projects in the following ways:
 - Participated in an invasive species video produced by the State University of New York at Plattsburgh.
 - Reviewed the Boquet River Association's Japanese knotweed brochure.
 - Participated in the 90 Miler by providing educational materials and conducting voluntary inspections at key portages.
 - Contributed invasive species information to a new publication in development "Adirondack Outdoors," a joint effort with DEC, Wildlife Conservation Society, Adirondack Mountain Club, and the Adirondack Forest Preserve Education Project.
 - Generated ideas with members of the Garden Club of America for a "Partner for Plants" project in 2009.
- Reached nearly 1,200 individuals through presentations by APIPP staff.
- Distributed two APIPP brochures, one about the program and another about our target plants.
- Highlighted in numerous newspapers and newsletters, and featured in the following venues: I-87 Northbound High Peaks Welcome Center; Natural History Museum of the Adirondacks; and Adirondack Park Agency Visitor Interpretive Centers.
- Maintained website, www.adkinvasives.com .

2008 Outreach efforts

- Worked with the Adirondack Park ANS Committee to develop an outreach strategy to businesses about didymo and aquatic invasive species.
- Contributed information to the NYS Invasive Species Council.
- Participated in 30 community events and workshops.
- Presented during the following conferences: *Weeds Across Borders Biannual Conference, Northeast Natural History Conference, International Conference on Allelopathy, New York State Federation of Lakes Association Annual Meeting, Florida Exotic Pest Plant Council Annual Meeting, Northeast Aquatic Nuisance Species Panel Spring Meeting*
- Received more than 100 "cold call" inquiries from the general public.
- Streamlined APIPP Email Distribution Lists to use a PRISM E-list Listserve, hosted by Cornell cce-apipp-1@cornell.edu .

Regional Planning and Coordination

- Worked with partners to plan for regional response teams.
- Contributed invasive plant inventory, management, and education recommendations to DEC Unit Management Plans.
- Initiated discussions about spread prevention and monitoring programs on Great Sacandaga Lake for spiny waterflea.
- Organized planning sessions with partners to outline outreach strategies to reach anglers, marinas, outfitters, and guides and to reach tournament organizers and participants.
- Held two principal partners meetings, seven aquatic committee meetings, and two terrestrial meetings (one aquatic and terrestrial meeting was held jointly).
- Chaired the Adirondack Park Aquatic Nuisance Species (ANS) Committee and assisted the implementation of the ANS Management Plan.
- Participated on the Lake Champlain Basin Program's ANS Subcommittee to continue development of a Rapid Response Plan for ANS in the Lake Champlain basin.
- Collaborated with other PRISMs (Partnerships for Regional Invasive Species Management) and Office of Invasive Species Coordination staff.
- Assisted DEC Bureau of Recreation-Division of Operations in creating its *Invasive Species Adaptive Management Guiding Document Adirondack Forest Preserve Campgrounds 2008 Report*.

2008 Research

- APIPP completed the second field season of its research project funded by the NYS Biodiversity Research Institute: Is restoration necessary following invasive plant removal? Assessments of three species in the Adirondack Park
- APIPP appreciates the research in the Park conducted by the following partner(s), which will deepen understanding of invasive species' biology, impacts and/or management.
 - Paul Smith's College:** Daniel Kelting for Eurasian watermilfoil post-treatment monitoring on Upper Saranac Lake, supported by Upper Saranac Lake Foundation, Inc.
 - Cornell University:** Jillian Standish Cohen, "Ecological impacts of an invasive plant, *Phalaris arundinacea*, along a nitrogen deposition gradient in the Adirondacks."

Please let us know if you or others are involved in invasive species research in the Adirondacks.

2008 Funding

- In 2008, APIPP was funded in part by the US Federal Highway Administration Scenic Byways Program (administered by the DOT and managed by the Adirondack North Country Association), Biodiversity Research Institute, the Adirondack Chapter of The Nature Conservancy, Department of Environmental Conservation, and several donors.
- APIPP helped secure \$43,134 in funding from the US Fish and Wildlife Service to continue co-implementation of the Adirondack Park Aquatic Nuisance Species Management Plan.

- APIPP participated in the 2008 Invasive Species Information Day in Albany to raise awareness about invasive species and priority programs.
- Together with Paul Smith's College Adirondack Watershed Institute, APIPP received funding from the DEC Aquatic Invasive Species Eradication Grant Program to eradicate Eurasian watermilfoil from Follensby Clear Pond using hand-harvesting techniques.

2008 Species Distribution Alerts

Information provided by the Office of Invasive Species Coordination

New Introductions into New York State

- Hydrilla, Orange County and Suffolk County
- Oakwilt, Schenectady

Significant Range Expansions in New York State

- Spiny waterflea, had been known from Erie, Ontario and Oneida; new to Great Sacandaga Lake.
- Asian clam, had been known from western NY, Erie Canal; new to Champlain Canal Hudson River Drainage.
- Northern snakehead, had been known from NYC; new to Orange County.
- Mile-minute vine, had been known from Lower Hudson; new to Cattaraugus County.
- Chinese mitten crab, had been known from Lower Hudson; new to numerous tributaries below Troy Dam.
- Hemlock woolly adelgid, had been known from eastern NY and urban Rochester; new to central and western NY.

Re-occurrence

- Asian long-horned beetle had been eradicated in 2007 on Staten Island but a new (small) population was found late-2008.

Elevated Threat

- Emerald ash borer, still not found in NY, but known from Ontario, Ohio, Pennsylvania; now found in Quebec.
- Didymo, *Didymosphenia geminata*, was detected in multiple rivers in Vermont, some within Lake Champlain Basin drainage.

2008 Regional and Statewide Milestones

- Hired Tyler Smith to serve as the Aquatic Invasive Species Project Coordinator.
- Principal partners reissued their Cooperative Agreement.
- Celebrated APIPP's 10 year anniversary.
- Received a state contract for five years, pending available funds.
- APIPP was nominated as the PRISM representative to the NYS Invasive Species Advisory Committee.
- The FY08 State Environmental Protection Fund included \$5 million to implement the recommendations of the Invasive Species Task Force, though these funds were reduced to \$4 million due to fiscal constraints realized in fall 2008.
- DEC updated its baitfish regulations http://www.dec.ny.gov/docs/fish_marine_pdf/baitfishofny.pdf and updated its website

with more aquatic invasive species information

<http://www.dec.ny.gov/animals/50121.html> and terrestrial invasive species information <http://www.dec.ny.gov/animals/6986.html> .

- Cornell Cooperative Extension and New York Sea Grant launched statewide invasive species information clearinghouse, <http://nyis.info/> .
- New York State Invasive Species Research Institute hired Coordinator and launched website, <http://nyisri.org/> .
- NY PRISMs continued to meet and develop regional initiatives.
- Work teams advanced the development of a 4-tier listing process, as described in the 2007 invasive species legislation.
- The DEC facilitated monthly statewide invasive species conference calls.
- The New York Invasive Species Council and Advisory Committee formed and met.
- The DEC maintained four staff in the Office of Invasive Species Coordination; and the Department of Agriculture and Markets maintained its invasive species coordinator.
- At the federal level, the US Forest Service produced a video on spread prevention methods for hunters and fishermen, <http://www.fs.fed.us/invasivespecies/prevention/defending.shtml>.

2009 Objectives

- Please see APIPP's 2009 Annual Workplan for a complete list of objectives and tasks. Highlights include:
 - Implementing several grant projects including the Scenic Byways invasive species community outreach project, phase III of the Grasse River European frogbit eradication project, phase II of the Eurasian watermilfoil eradication project in Follensby Clear Pond; and final reporting for the Biodiversity Research Institute post-treatment monitoring of three wetland invasive plants project.
 - Ramping up volunteer monitoring efforts and spread prevention programs.
 - Formalizing regional response plans, developing regional response teams, and prioritizing response workplans.
 - Identifying invasive species prevention zones to focus early detection and rapid response efforts.
 - Collaborating with the NYS invasive species database and mapping coordinator.

Please see attached document with tables, figures, and maps.

Thank you for your help to protect the Adirondack region from invasive species.

Thank you to past and present cooperating partners!

More than 300 Volunteers!
 Adirondack Association of Towns and Villages
 Adirondack Cooperative Loon Program
 Adirondack Council
 Adirondack Lake Survey Corporation
 Adirondack Landowners' Association
 Adirondack Mountain Club
 Adirondack Museum
 Adirondack North Country Association
 Adirondack Park Agency
 Adirondack Park Agency Visitor Interpretive Centers
 Association for the Protection of the Adirondacks
 Au Sable River Association
 Becket-Chimney Corners YMCA
 Boquet River Association
 CAP-21
 Clinton and Essex County Master Gardeners
 Cornell Cooperative Extension County Offices
 (Clinton, Essex, Hamilton, St. Lawrence and Warren)
 Cornell University
 Darrin Fresh Water Institute
 Department of Agriculture and Markets
 Department of Environmental Conservation
 Department of Transportation
 Essex County Garden Club
 Federal Highways Administration
 Franklin County Network of Shoreline Associations
 Garden Club of America
 Great Sacandaga Lake Advisory Committee
 Hamilton College
 Hamilton County Soil and Water Conservation
 District
 Invasive Plant Council of NYS
 Lake Champlain Basin Program
 Lake Champlain Sea Grant
 Lake George Land Conservancy
 Lake George Park Commission
 Lake George Watershed Conference
 The Lake Placid/Essex County Visitors Bureau
 Massawepie Scout Camps
 Natural History Museum of the Adirondacks
 NYS Invasive Species Task Force
 North Country School and Camp Treetops
 Paul Smiths College Adirondack Watershed Institute
 Regional Inlet Invasive Plant Program
 Residents Committee to Protect the Adirondacks
 Saranac Waterkeeper
 Student Conservation Association
 St. Regis Mohawk Tribe
 SUNY ESF Wanakena, Newcomb
 SUNY Plattsburgh
 The Nature Conservancy
 Town of Inlet
 Town of Webb, DPW
 Trout Unlimited

Village of Saranac Lake
 Warren County Soil and Water Conservation District
 Wildlife Conservation Society

Shoreowner groups including, but not limited to
 6th and 7th Lakes Association
 Bellmont Mountain View Indian Lakes Foundation
 Big Moose Property Owners' Association
 Big Wolf Lake Association
 Blue Mountain Lake Association
 Brandreth Lake Association
 Brant Lake Association
 Brantingham Lake Association
 Chateaugay Lakes Association
 Chazy Lake
 Cranberry Lake Boat Club
 East Caroga Lake Protective Association
 East Schroon Lake Association
 Fulton Chain of Lakes Association
 Great Sacandaga Lake Association
 Gull Pond Association
 Horseshoe Pond/Deer River Flow Association
 Indian Lake Association
 Jones Pond Association
 Lake Colby Association
 Lake George Association
 Lake Pleasant Sacandaga Association
 Lake Luzerne
 Little Long Lake Association
 Livingston Lake Association
 Long Lake Association
 Long Pond Association
 Loon Lake Association
 Lower Saranac Lake Association
 Minerva Lake
 Mirror Lake Association
 Mt Arab Eagle Crag Association
 Mt View and Indian Lakes Association
 Osgood Pond Association
 Paradox Lake Association
 Piseco Lake Association
 Rainbow Lake Association
 Raquette Lake Property Owners' Association
 Schroon Lake Association
 Shoreowners' Association of Lake Placid
 Silver Lake Association
 St. Regis Chain of Lakes Association
 Star Lake Protective Association
 Spy Lake Association
 Upper Saranac Lake Foundation
 Upper Saranac Lake Association
 West Caroga Lake Association
 And More!

Table 1. APIPP lakes surveyed in 2008 and aquatic invasive plants observed.
Alphabetized by county and town. Please refer to website for detailed plant survey reports for lakes listed below, and lakes surveyed to-date. <http://www.adkinvasives.com>

Lake Name	Town	County	Invasive Plant Found
Silver Lake	Black Brook	Clinton	None observed
Mill Pond	Elizabethtown	Essex	None observed
Murray Pond	Elizabethtown	Essex	None observed
Newport Pond	Elizabethtown	Essex	None observed
Russet Pond	Elizabethtown	Essex	None observed
Tanaher Pond	Elizabethtown	Essex	None observed
Harris Lake	Newcomb	Essex	None observed
Rich Lake	Newcomb	Essex	None observed
Lake Placid	North Elba	Essex	None observed
Bass Lake	North Hudson	Essex	None observed
Challis Pond	North Hudson	Essex	None observed
Proctor Pond	North Hudson	Essex	None observed
Crane Pond	Schroon	Essex	None observed
Gull Pond	Schroon	Essex	None observed
Oliver Pond	Schroon	Essex	None observed
Paradox Lake	Schroon	Essex	Eurasian watermilfoil
Schroon Lake	Schroon	Essex	Eurasian watermilfoil
Moose Pond	St. Armand	Essex	None observed
Clear Pond	Ticonderoga	Essex	None observed
Putnam Pond	Ticonderoga	Essex	Eurasian watermilfoil
Rock Pond	Ticonderoga	Essex	None observed
Indian Lake	Bellmont	Franklin	Eurasian watermilfoil
Mountain View Lake	Bellmont	Franklin	Eurasian watermilfoil
Barnum Pond	Brighton	Franklin	None observed
Church Pond	Brighton	Franklin	None observed
Mountain Pond	Brighton	Franklin	None observed
Clear Pond	Duane	Franklin	None observed
Eagle Pond	Duane	Franklin	None observed
Meacham Lake	Duane	Franklin	Eurasian watermilfoil
Buck Pond	Franklin	Franklin	None observed
Lake Kushaqua	Franklin	Franklin	None observed
Loon Lake	Franklin	Franklin	None observed

Rainbow Lake	Franklin	Franklin	None observed
Lake Clear	Harrietstown	Franklin	None observed
Lake Flower	Harrietstown	Franklin	Eurasian watermilfoil
Stony Creek Ponds	Harrietstown	Franklin	None observed
East Pine Pond	Santa Clara	Franklin	None observed
Green Pond	Santa Clara	Franklin	None observed
Hoel Pond	Santa Clara	Franklin	None observed
Kit Fox Pond	Santa Clara	Franklin	None observed
Little Clear Pond	Santa Clara	Franklin	None observed
Little Long Pond	Santa Clara	Franklin	None observed
Middle Pond	Santa Clara	Franklin	None observed
Nellie Pond	Santa Clara	Franklin	None observed
Rollins Pond	Santa Clara	Franklin	None observed
Whey Pond	Santa Clara	Franklin	None observed
Big Wolf Lake	Tupper Lake	Franklin	None observed
Gull Pond	Tupper Lake	Franklin	None observed
Canada Lake	Caroga	Fulton	None observed
Forked Lake	Arietta	Hamilton	None observed
Oxbow Lake	Arietta	Hamilton	None observed
Spy Lake	Arietta	Hamilton	None observed
Blue Mt. Lake	Blue Mt. Lake	Hamilton	None observed
Eagle Lake	Indian Lake	Hamilton	None observed
Indian Lake	Indian Lake	Hamilton	None observed
Lake Abanakee	Indian Lake	Hamilton	None observed
Lake Durant	Indian Lake	Hamilton	None observed
Rock Pond	Indian Lake	Hamilton	Variable-leaf milfoil*
Utowana Lake	Indian Lake	Hamilton	None observed
Brown Tract Pond (Lower)	Inlet	Hamilton	None observed
Brown Tract Pond (Upper)	Inlet	Hamilton	None observed
Eighth Lake	Inlet	Hamilton	None observed
Echo Lake	Lake Pleasant	Hamilton	None observed
Lake Pleasant	Lake Pleasant	Hamilton	None observed
Lewey Lake	Lake Pleasant	Hamilton	None observed
Sacandaga Lake	Lake Pleasant	Hamilton	None observed
Whitaker Lake	Lake Pleasant	Hamilton	None observed
Brandreth Lake	Long Lake	Hamilton	None observed
Lake Eaton	Long Lake	Hamilton	None observed
Long Lake	Long Lake	Hamilton	None observed
Round Lake	Long Lake	Hamilton	None observed
Sagamore Lake	Long Lake	Hamilton	None observed
Piseco Lake	Piseco	Hamilton	None observed
Limekiln Lake	Ohio	Herkimer	None observed
Brantingham Lake	Brantingham	Lewis	None observed

Chases Lake	Watson	Lewis	None observed
Little Long Lake	Woodgate	Oneida	None observed
Cranberry Lake	Clifton	St. Lawrence	Variable-leaf milfoil*
Star Lake	Fine	St. Lawrence	None observed
Joe Indian Pond	Parishville	St. Lawrence	None observed
Eagle Crag Lake	Piercefield	St. Lawrence	None observed
Horseshoe Lake	Piercefield	St. Lawrence	None observed
Mt. Arab Lake	Piercefield	St. Lawrence	None observed
Chateimac Lake	Johnsburg	Warren	None observed
Crane Mountain Pond	Johnsburg	Warren	None observed
Garnet Lake	Johnsburg	Warren	None observed
Oven Mountain Pond	Johnsburg	Warren	None observed
Thirteenth Lake	Johnsburg	Warren	None observed
Fourth Lake	Lake Luzerne	Warren	None observed
Livingston Lake	Stony Creek	Warren	None observed

* *Myriophyllum heterophyllum*, variable-leaf watermilfoil, was observed during plant surveys in the following lakes: Cranberry Lake, Newton Falls Impoundment (Chaumont Pond), Jenkins Bay of Tupper Lake, Raquette Lake, Long Lake, Piercefield Flow, First and Fourth Lakes of the Fulton Chain, Lake Flower, Lake Durant, and Rock Pond. Though native to the U.S., *Myriophyllum heterophyllum* is considered an exotic invasive plant in New England. It is included as a ‘watched species’ in the Adirondack Park.

Table 2. APIPP lakes with voucher specimens on file with the Adirondack Park Invasive Plant Program.

Lake Name	Voucher specimen
7 th Lake Fulton Chain	Eurasian watermilfoil
Brant Lake	Eurasian watermilfoil
Chazy Lake	Eurasian watermilfoil
Copperas Pond	Eurasian watermilfoil
Cranberry Lake	Variable-leaf watermilfoil
Deer River Flow	Eurasian watermilfoil
East Caroga Lake	Eurasian watermilfoil
Fifth Lake, Fulton Chain	Eurasian watermilfoil
Fish Creek	Eurasian watermilfoil
Fish Creek Pond	Eurasian watermilfoil
Floodwood Pond	Eurasian watermilfoil
Follensby Clear Pond	Eurasian watermilfoil
Franklin Falls Pond	Eurasian watermilfoil, curlyleaf pondweed
Horseshoe Pond, Duane	Eurasian watermilfoil
Grasse River	European frog-bit
Kiwassa Lake	Eurasian watermilfoil
Lake Durant	Variable-leaf watermilfoil
Lake Flower	Eurasian watermilfoil, curlyleaf pondweed
Little Square Pond	Eurasian watermilfoil
Long Lake, Long Lake	Variable-leaf watermilfoil
Long Pond, Willsboro	Eurasian watermilfoil
Meacham Lake	Eurasian watermilfoil
Minerva Lake	Eurasian watermilfoil
Putnam Pond	Eurasian watermilfoil
Raquette Lake	Variable-leaf watermilfoil
Sixth Lake of Fulton Chain	Eurasian watermilfoil
Taylor Pond	Eurasian watermilfoil
Union Falls Pond	Eurasian watermilfoil

Figure 1. Participants at training sessions for aquatic plant identification and monitoring techniques, 2002-2008.

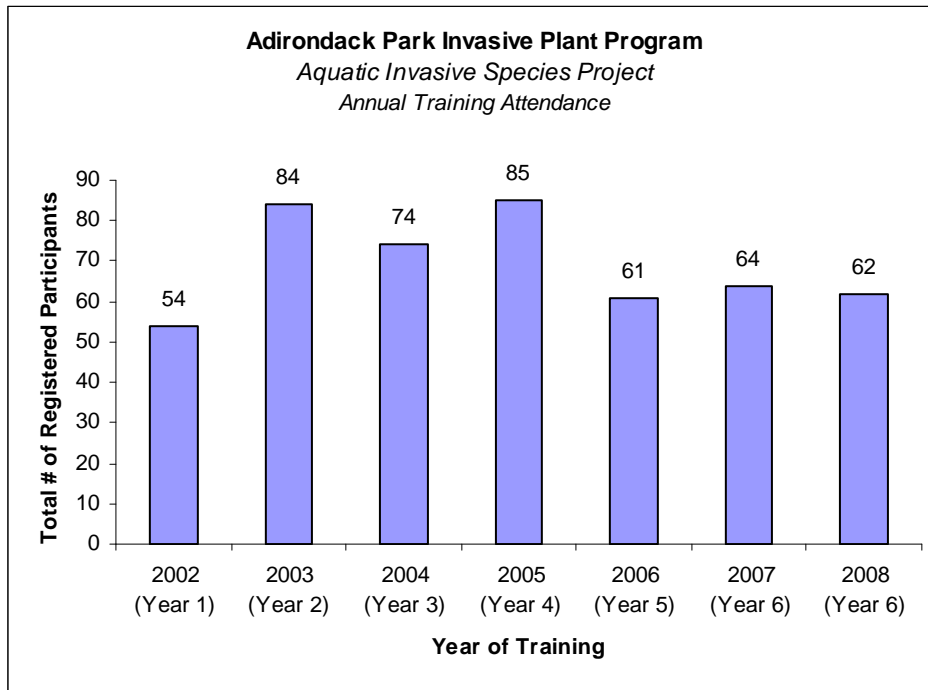


Figure 2. Number of lakes monitored and APIPP volunteers, 2002-2008.

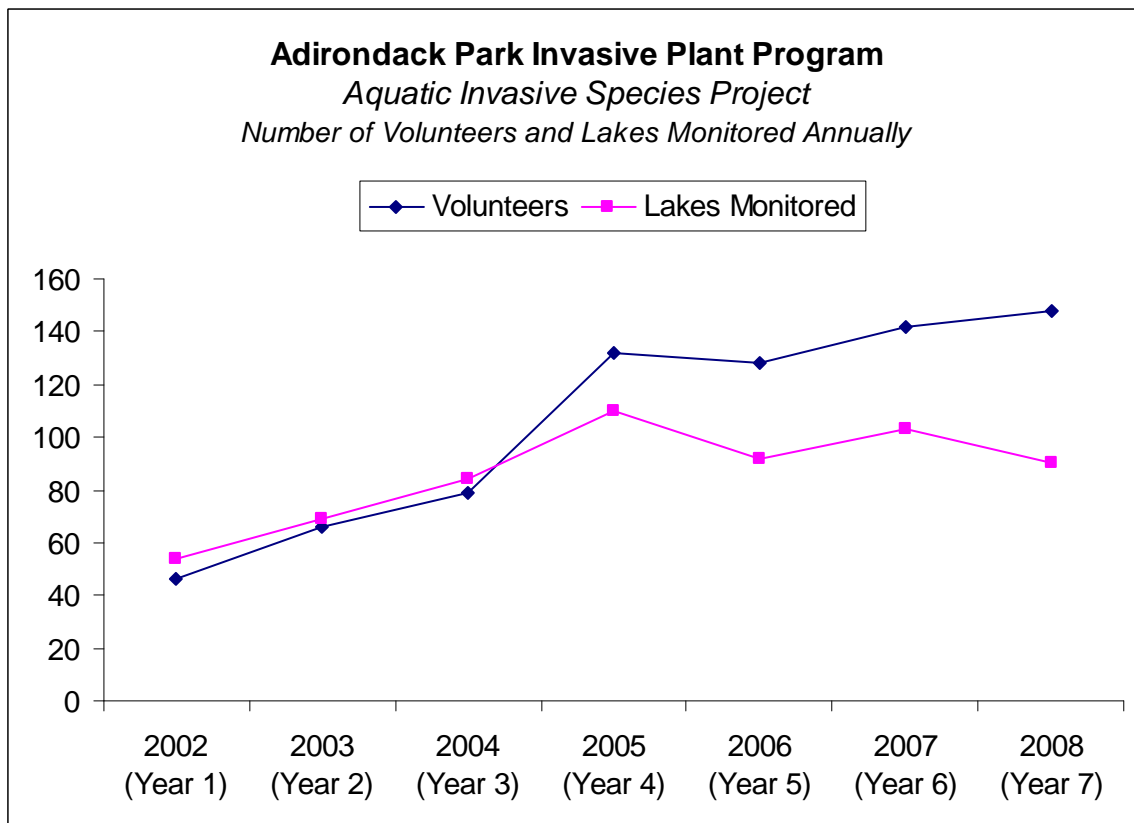


Figure 3. Distribution of lakes monitored by APIPP volunteers, 2002-2008.

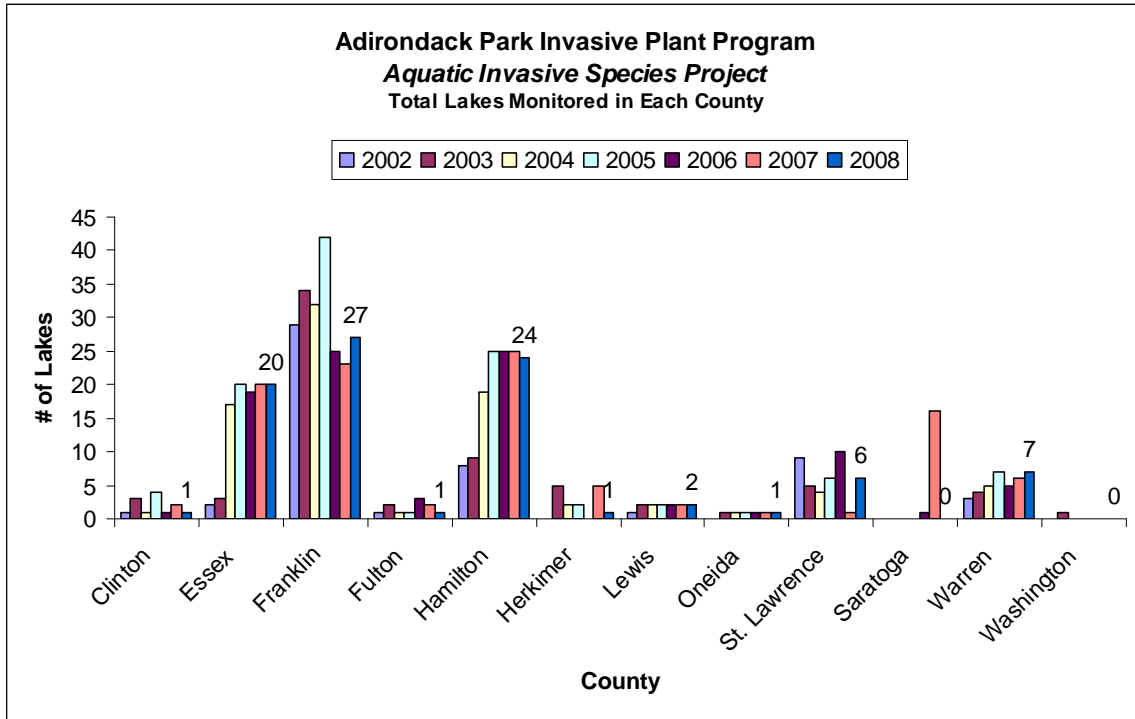


Figure 4. Number of new and returning volunteers by year.

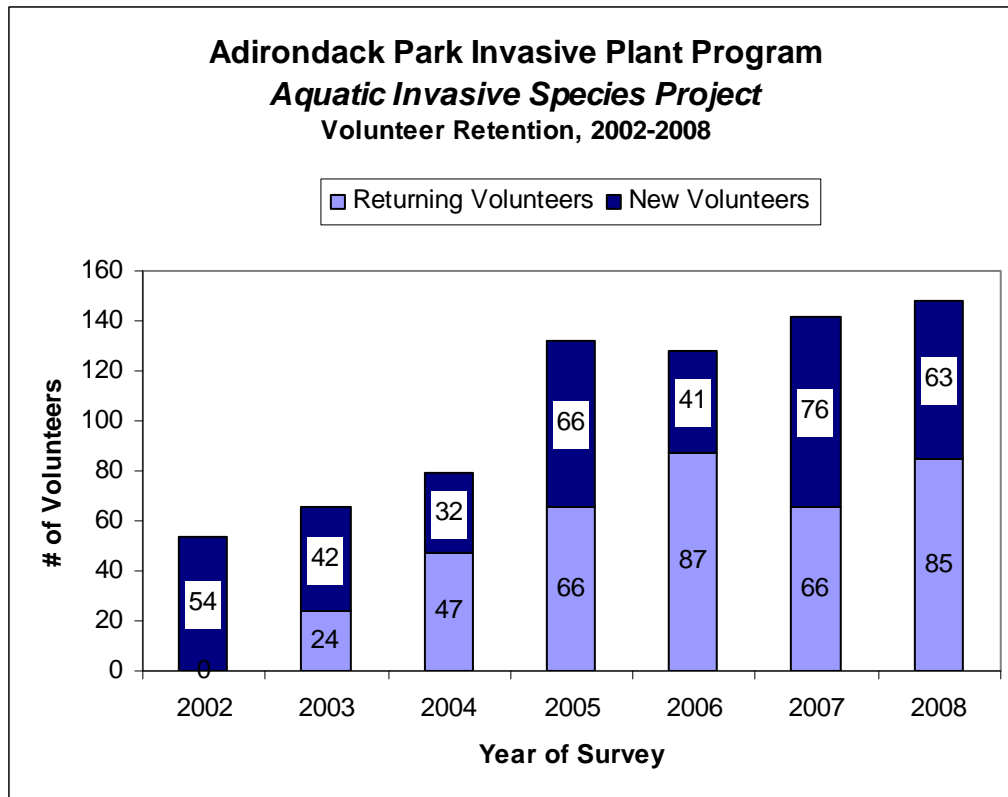
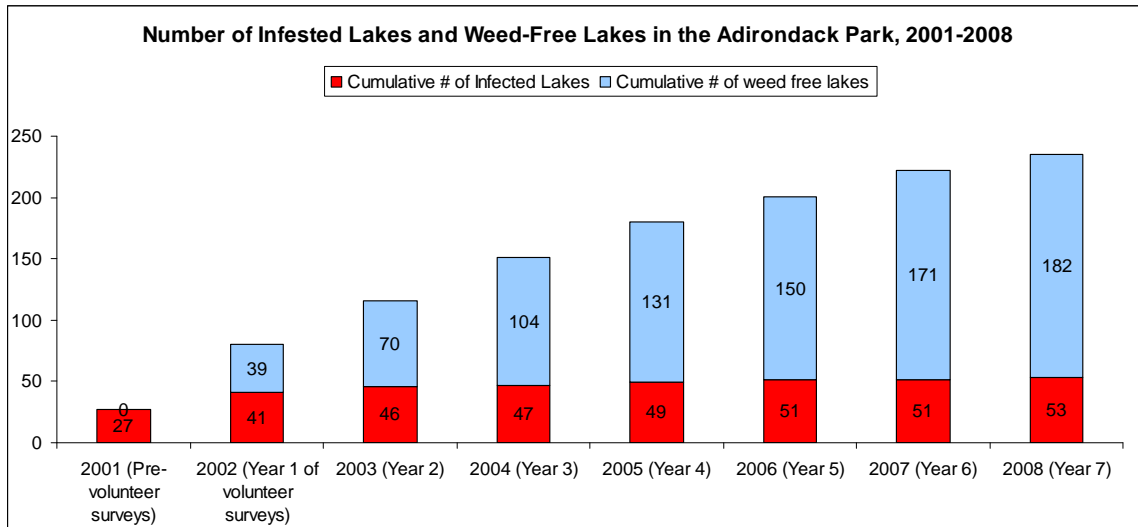
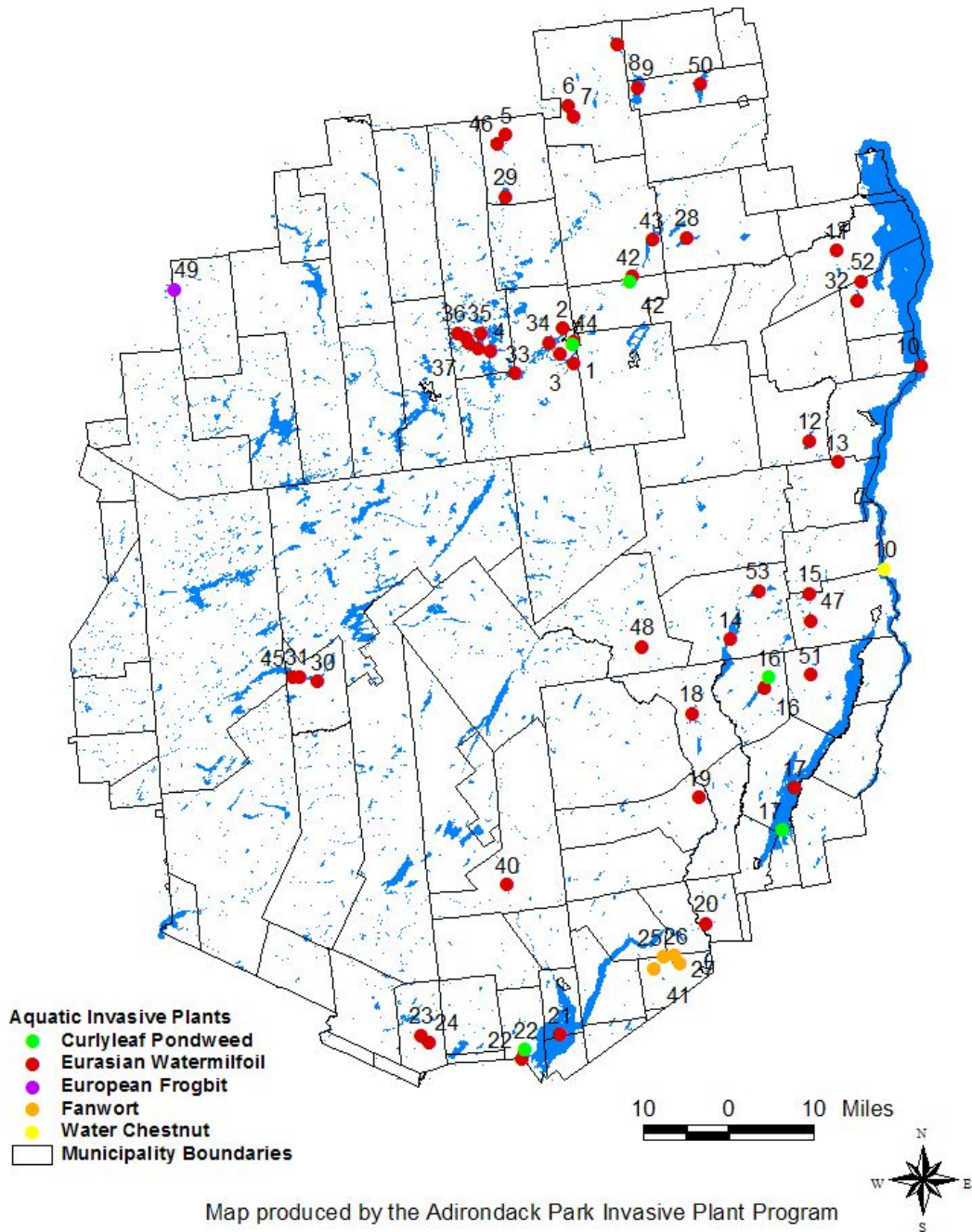


Figure 5. Cumulative number of infested lakes and lakes monitored by APIPP volunteers where no invasive plants were detected.



Map 1. The list of lake names corresponding to the numbers below is attached.

Distribution of Adirondack Lakes with Aquatic Invasive Plants, 2008



Map 1
Adirondack Park Waterbodies Reported with Aquatic Invasive Plants

A	
1	Oseetah Lake
2	Lake Colby
3	Kiwassa Lake
4	Upper Saranac Lake
5	Horseshoe Pond
6	Indian Lake
7	Mountain View Lake
8	Lower Chateaugay Lake
9	Upper Chateaugay Lake
10	Lake Champlain
11	Augur Lake
12	Lincoln Pond
13	Bartlett Pond
14	Schroon Lake
15	Eagle Lake
16	Brant Lake
17	Lake George
18	Loon Lake
19	Daggett Lake
20	Lake Luzerne
21	Great Sacandaga Lake
22	Mayfield Lake
23	West Caroga Lake
24	East Caroga Lake
25	Effner Lake
26	Jenny Lake
27	Hunt Lake
28	Taylor Pond
29	Meacham Lake
30	Seventh Lake
31	Sixth Lake
32	Long Pond
33	Middle Saranac Lake
34	Lower Saranac Lake
35	Follensby Clear Pond
36	Floodwood Pond
37	Little Square Pond
38	Fish Creek Pond
39	Copperas Pond
40	Lake Algonquin
41	Mill Pond
42	Franklin Falls
43	Union Falls Flow
44	Lake Flower
45	Fifth Lake
46	Deer River Flow
47	Putnam Pond
48	Minerva Lake
49	Grasse River at Lampson Falls
50	Chazy Lake
51	North Pond

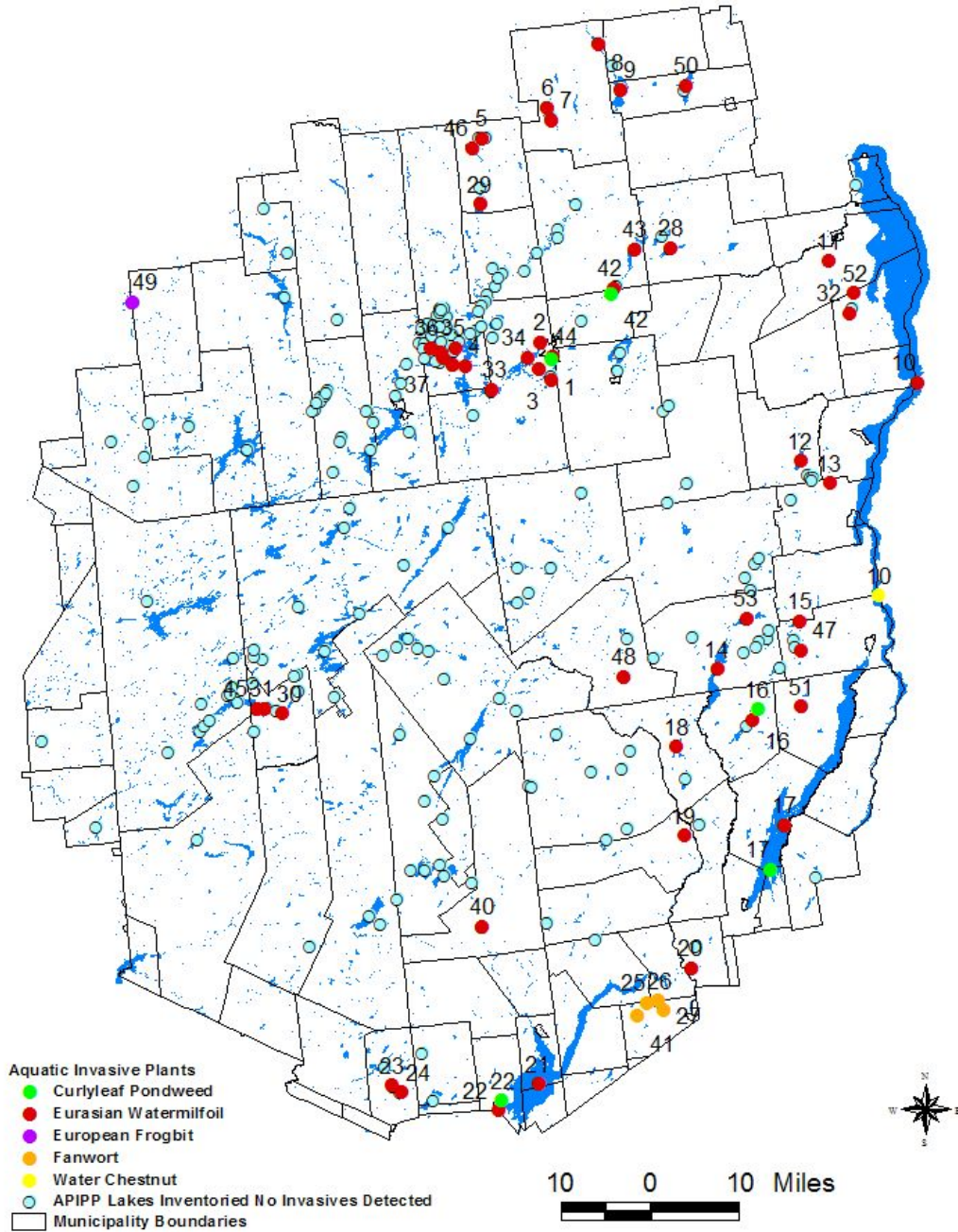
Map prepared by APIPP. Aquatic plant reports provided by a variety of plant monitoring programs and cited in the Darrin Fresh Water Institute Annual Reports.

Map 1
Adirondack Park Waterbodies Reported with Aquatic Invasive Plants

	A
52	Highlands Ledge Pond
53	Paradox Lake

Map 2.

Distribution of Lakes Monitored and Aquatic Invasive Plants in the Adirondack Park, 2008



Map produced by the Adirondack Park Invasive Plant Program