

2007 Annual Report

Prepared by

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and

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The Adirondack Park Invasive Plant Program 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 plants.

We were honored to accept the 2007 Environmental Excellence Award from the Department of Environmental Conservation on behalf of the partners and volunteers of the Adirondack Park Invasive Plant Program.

Thank you.

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Mission

The Adirondack Park Invasive Plant Program (APIPP) is a partnership program whose mission is to protect the Adirondack Park from the negative impacts of non-native invasive plants. 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 Plant Project and the Terrestrial Invasive Plant Project. In 2007, APIPP began broadening its mission to also address non-plant invasive species.

Goals

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

Distribution Summary

Aquatic

• At least fifty-one waterways have aquatic invasive plants in the Adirondack Park (Map 1). In six seasons, more than 308 APIPP Invasive Plant Volunteers surveyed 205 distinct waters (Map 2). With your assistance, APIPP is successfully establishing baseline information about the distribution of aquatic invasive plants in the Adirondack Park. Thank you for your substantial contribution to invasive species prevention and detection!

Terrestrial

• Six-hundred-fifty-six 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 2007 by the Aquatic Invasive Plant Project and the Terrestrial Invasive Plant Project with the assistance of partner organizations, resident groups, and volunteers:

2007 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 and Elizabeth Mangle, Hamilton County Soil and Water Conservation District (HC SWCD); and, Mary McLean Johnson, and members of the Chateaugay Lakes Association. Thank you for making these sessions a success!

- Trained 64 participants in 2007 (Figure 1): 18 participants in Bolting Landing, 23 in Lake Pleasant, and 23 in Chateaugay.
- Distributed training manuals and secondary education resources for volunteer use.

Terrestrial

• Trained DEC's Student Conservation Association team members, three APIPP terrestrial invasive plant stewards, two DOT student intern stewards, two Lake George Land Conservancy stewards, members of the Beckett-Chimney Corners YMCA, and Adirondack Nature Conservancy Interns and Preserve Adopters.

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 Park. 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 alikes

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, black swallow-wort, giant hogweed, and Indian cup-plant. For a more complete list of invasive terrestrial plants present in the Park. 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 in the Park.

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 Park, 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 park. Himalayan balsam (*Impatiens glandulifera*)

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

2007 Monitoring

Aquatic – 6th Season

- Implemented protocol for regional volunteer monitoring for aquatic invasive plants.
- Since the start of the Aquatic Project in 2001, the number of waters monitored annually has nearly doubled and volunteer participation has nearly tripled (Figure 2).
- In 2007, 142 volunteer monitors and partner staff surveyed 103 Adirondack waterways (Table 1, Figure 3).
- Accrued more than 720 volunteer monitoring hours.
- Volunteer recruitment and retention remains high. (Figure 4).

Terrestrial

- Accrued more than 27,995 miles conducting Early Detection Rapid Response activities.
- Throughout the season, staff spent 560 hours driving 4,300 miles to conduct Early Detection Rapid Response in the Mohawk Valley. Documented 201 infested sites in the Mohawk Valley watershed: 90 wetland sites and 111 fringe or Right-of-Way (ROW) sites. Approximately 29 acres of garlic mustard are infested, 1.1 acres of Japanese knotweed, 4.4 acres of common reed, 1.75 acres of purple loosestrife.
- 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: Santanoni Historic Area (multiple honeysuckle infestations detected, two Japanese knotweed infestations detected); Jay Mountain WA (one honeysuckle in proximity, two buckthorn); Hurricane Mountain WA (one buckthorn); Hoffman Notch WA (two spotted knapweed); Sargents Pond WA (two garlic mustard, two honeysuckle, one spotted knapweed); Whitney WA (two spotted knapweed); and, Lake George Wild Forest (one Japanese knotweed, one common reed). The interiors of both Hoffman Notch WA and William C. Whitney WA

- were relatively weed free and these two Units will be perpetually monitored and managed as Weed Prevention Areas.
- ANC staff and SCA implemented a 50-hour, 1,000 mile, State, County and Town road ROW/fringe survey for pale and black swallow-worts in a 25 square mile bandwidth of NW Herkimer, St. Lawrence and NW Franklin Counties. No black or pale swallow-wort infestations were documented.
- Monitored 25 previously controlled infestations along the route of National Grid's 46 kV line from Stark to Piercefield, NY. Only three sites needed follow-up treatment. All other sites showed reductions in biomass.
- NYS DOT Region 1 surveyed the I-87 Adirondack Northway's north-bound ROW from the southern Blue Line up to exit 28 and detected Oriental bittersweet, purple loosestrife and common reed. NYS DOT is digitizing the Northway infestations and will incorporate these sites in the updated ROW distribution maps.

2007 Management

Aquatic

• Hired a seasonal field coordinator, Steve Langdon, who initiated the European frog-bit eradication project on the Grasse River near Lampson Falls. The infestation was less than one quarter acre in size. Harvested material weighed approximately 1000 lbs wet (9 lbs dry).

Terrestrial

- Managed 98 NYS DOT ROW sites park-wide. Purple loosestrife was the primary target species and over 4,500 pounds of gleaned invasive plant material was removed from the ROWs. NYS DOT Warrensburg Residency managed five Japanese knotweed sites and one common reed site via foliar treatments.
- Implemented containment and suppression controls at 91 of the 201 documented sites within the Mohawk Valley Watershed. NYS DOT Utica's vegetative Management Crew treated six sites within the project area.
- Provided garlic mustard controls at numerous infestations totaling approximately 21 acres within NYS DEC's Black River Wild Forest Unit and Ferris Lake Wild Forest Unit. Nearly 2,300 pounds of plant material were removed.
- Implemented manual management controls within the following NYS DEC Forest Preserve Units: Hoffman Notch, Sargents Pond, Whitney Wilderness, Moose River Plains, Debar Mountain, Taylor Pond, Shaker Mountain and St. Regis Canoe Area. Controlled and removed five 7-bushel bags of spotted knapweed from Hoffman Notch, Sargent Ponds, and Whitney.
- Assisted NYS DEC Operations with controls at 31 infested Forest Preserve Camp Grounds. Results are compiled in the NYS DEC Bureau of Recreation Division of Operations Invasive Species Adaptive Management Guiding Document Adirondack Forest Preserve Campgrounds 2007 Report.
- Implemented stem injection controls at yellow iris infestations along shorelines of Eagle Crag and Mt. Arab Lakes, as well as at yellow iris infestations at DEC's Lake Placid boat launch. ANC staff and seasonal steward also implemented foliar treatment of Rodeo

- herbicide to approximately 750 yellow iris flowers/stems at Barton Mines tailings pond that outlets into The Vly within the Siamese Ponds Wilderness Area.
- Implemented controls at five sites in coordination with APIPP's NYS Biodiversity Research Institute project. Approximately 3,500 square feet of Phragmites was steminjected and 6,000 square feet of Japanese knotweed received cut-stem treatment.
- Seventeen volunteers accrued more than 320 stewardship hours.

Distribution Analysis

Aquatic

- The number of "weed-free" lakes surveyed by APIPP volunteers is nearly quadruple that of infested lakes (Figure 5).
- Approximately half of the 51 infested waters in the Park have state boat launches:
 - o 65 DEC launches in the Park (approximately)
 - 22 waters infested
 - 6 waters with "watched species" variable-leaf watermilfoil
 - 32 waters surveyed by volunteers, no infestations observed
 - 7 waters still to be surveyed

Terrestrial

- Analysis of the jurisdictional distribution of terrestrial invasive plants:
 - DEC
 - 19 Forest Preserve units have one or more occurrences of invasive plants, and approximately 150 occurrences have been documented.
 - Of 37 land-based campgrounds, 31 have invasive plants. Of the Lake George Islands complex, Long Island, Speaker Heck Island and Diamond Island are infested with exotic honeysuckle/purple loosestrife/spotted knapweed, exotic honeysuckle/purple loosestrife and exotic honeysuckle, respectively.
 - DOT
 - 242 sites documented with jurisdictional ROW.
 - Private lands and complex jurisdictional "gray" areas
 - 165 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 Plant 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.
- Created digitized lake maps for waterbodies surveyed in 2007.
- 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.
- Updated the website with Park-wide, county, and USGS quad maps illustrating terrestrial invasive plant occurrences from 2006. 2007 data will be updated soon.

Below is a summary of APIPP's achievements in 2007 that included both the Terrestrial Invasive Plant Project and the Aquatic Invasive Plant Project.

APIPP seasonal stewardship

- Offered four seasonal stewardship positions to Tessa Hopsicker, Mohawk Valley
 Watershed Steward (Environmental Protection Agency funded in partnership with APA);
 Holly Alley, Student Conservation Association Forest Preserve Steward (DEC funded);
 Steve Langdon, Grasse River Steward (DEC funded); and to Ben Baker, the Nature
 Conservancy Resource Protection Intern (part-time funded by TNC).
- Collaborated with DEC Operation's Invasive Species Specialist Wayne Blanchard.
- Coordinated with DOT's two student interns.

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

- DEC Region 6 staff
- DOT Construction staff
- Paul Smith's College Watershed Stewardship Program (WSP) stewards
- Volunteer Lake Steward Program (co-sponsored with the Paul Smith's College WSP)
- Adirondack Mountain Club Algonquin Chapter
- Town of Inlet staff
- Essex County Master Gardeners
- Empire State Forest Products Association members
- DEC Operations Region 5 Camp Ground Care Takers
- Paradox Lake Association members

2007 APIPP Education efforts

- Designed, printed, and distributed two APIPP brochures, one about the program and another about our target plants. Funding was managed by the Adirondack North Country Association and provided by the NYS DOT and FHWA Scenic Byways Program.
- Hosted a terrestrial invasive plant identification training session for partners.
- Helped to celebrate the 2nd Annual Adirondack Park Invasive Species Awareness Week. Offered three plant identification sessions for the general public in Paul Smiths, Wanakena, and Inlet.
 - http://www.adkinvasives.com/InvasiveSpeciesAwarenessWeek.html
- Participated in the All-Taxa-Biodiversity Inventory of the Adirondacks Bio-Blitz for aquatic plants at the Paul Smith's Visitor Interpretive Center.
- Distributed two newsletters: http://www.adkinvasives.com/documents/ROOTSFallWinter07.pdf; http://www.adkinvasives.com/documents/ROOTSFallWinter07.pdf;
- 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.
- Collaborated with the following groups on invasive species awareness projects:
 - o Mac's Livery to distribute ANS information to participants of the 90 Miler.
- Reached more than 1,000 individuals through presentations by principal partner agency representatives.

2007 Outreach efforts

- Worked with the Adirondack Park ANS Committee to recognize Senator Little for her support of invasive species solutions.
- Contributed information to the NYS Invasive Species Task Force.
- Participated in 30 community events and workshops.
- Presented during the following conferences: Local Government Day, Invasive Plant Council NYS Conference, and NYS Wetlands Forum.
- Received more than 100 "cold call" inquiries from the general public.
- Updated the Adirondack Park Invasive Plant list-serve, http://groups.yahoo.com/group/Adirondack_Invasives/. The list-serve provides a forum for discussion and information exchange about invasive species issues throughout the Park.

Regional Planning

- Formalized the Adirondack Aquatic Nuisance Species Committee and its membership via a cooperative agreement.
- Chaired the Adirondack Park Aquatic Nuisance Species (ANS) Committee and assisted the implementation of the ANS Management Plan.
- Assisted the Adirondack ANS Committee in drafting language for an aquatic invasive species spread prevention law.

- 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.
- Contributed invasive plant inventory, management, and education recommendations to DEC Unit Management Plans.
- Helped to formalize 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.*
- Collaborated with other PRISMs (Partnerships for Regional Invasive Species Management).
- Assisted DEC Bureau of Recreation-Division of Operations in creating its *Invasive* Species Adaptive Management Guiding Document Adirondack Forest Preserve Campgrounds 2007 Report.

2007 Research

- APIPP initiated 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.

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

2007 Funding

- In 2007, APIPP was funded in part by the Environmental Protection Agency, US Federal Highway Administration, Biodiversity Research Institute, and short-term funds from the Adirondack Chapter of The Nature Conservancy, Department of Environmental Conservation, and several private donors.
- APIPP helped secure funding from the US Fish and Wildlife Service to continue coimplementation of the Adirondack Park Aquatic Nuisance Species Management Plan.
- Participated in the 2007 Invasive Species Lobby Day in Albany to raise awareness about the need for invasive species funding.
- Co-sponsored a proposal to the DEC Aquatic Invasive Species Eradication Grant Program to eradicate Eurasian watermilfoil from Follensby Clear Pond using handharvesting techniques.

2007 Statewide Milestones

- The FY07 State Environmental Protection Fund included \$5 million to implement the recommendations of the Invasive Species Task Force.
- The formation of each of NY's eight PRISMs got underway.

- The DEC facilitated monthly statewide invasive species conference calls.
- The DEC administered its \$2 million Invasive Species Eradication Grant Program for aquatic and terrestrial invasive species. Approximately 40% of aquatic invasive species funds went to Adirondack projects.
- The Governor and Legislature established the New York Invasive Species Council and Advisory Committee.
- The DEC formed the Invasive Species Office of Coordination and received approval to hire two additional staff, bringing the staff to four.
- The Department of Agriculture and Markets received approval to hire an invasive species coordinator to serve as their liaison to the NY Invasive Species Council and Office of Invasive Species Coordination.

2008 Objectives

- Please see APIPP's 2008 Annual Workplan for a complete list of objectives and tasks. Highlights include:
 - Celebrating APIPP's 10 year anniversary.
 - Implementing several grant projects including the Scenic Byways invasive species community outreach project, phase II of the Grasse River European frogbit eradication project, phase II of post-treatment monitoring of three wetland invasive plants, and coordination and development of the Adirondack Partnership for Regional Invasive Species Management.
 - Hiring an aquatic invasive species coordinator.
 - Reissuing APIPP's Cooperative Agreement in summer 2008.
 - Continuing the implementation of the Adirondack Park Aquatic Nuisance Species Management Plan. *<The ANS Committee has a separate annual report and annual workplan, available on our website www.adkinvasives.com >*.
 - Support parallel program initiatives such as the Lake Champlain Basin Program's
 ANS Rapid Response Planning effort; the Paul Smith's College Watershed
 Stewardship Program's Volunteer Lake Steward Program to train volunteers to
 intercept aquatic nuisance species at boat launches; the Adirondack All Taxa
 Biodiversity Inventory Aquatic Taxonomic Working Group; and, the NYS Flora
 Atlas's invasive plant voucher collection initiative.

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

Thank you for your help to protect the Park 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 Wester)

(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 Federal Highways Administration

Franklin County Network of Shoreline Associations

Garden Club of America 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 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

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

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 2007 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 Surveyed	Town	County	Invasive Plant Found
			Eurasian
Chazy Lake	Dannemora	Clinton	watermilfoil
,			None
Silver Lake	Black Brook	Clinton	observed
			None
Mill Pond	Elizabethtown	Essex	observed
			None
Murrey Pond	Elizabethtown	Essex	observed
5 "5 "		_	None
Russett Pond	Elizabethtown	Essex	observed
Tanaher Pond	Elizabethtown	Essex	None observed
Tananei Pond	Elizabethtown	ESSEX	None
Lower Ausable Lake	Keene	Essex	observed
Lower / tabable Lake	TROCHO	Loock	None
Upper Ausable Lake	Keene	Essex	observed
	11000		None
Barnes Pond	Minerva	Essex	observed
			Eurasian
Minerva Lake	Minerva	Essex	watermilfoil
			None
Newport Pond	Moriah	Essex	observed
			None
Goodnow Flow	Newcomb	Essex	observed
			None
Henderson Lake	Newcomb	Essex	observed
	N. 4 F.	_	None
Lake Placid	North Elba	Essex	observed
Bass Lake	North Hudson	Essex	None observed
bass Lake	NOITH HUUSOH	ESSEX	None
Johnson Pond	Schroon	Essex	observed
COMISCITT ONG	Comcon	Loock	None
Crane Pond	Schroon	Essex	observed
			None
Paradox Lake	Schroon	Essex	observed
			Eurasian
Schroon Lake	Schroon	Essex	watermilfoil
			None
Moose Pond	St. Armand	Essex	observed
			Eurasian
Putnam Pond	Ticonderoga	Essex	watermilfoil
			None
Rock Pond	Ticonderoga	Essex	observed
			Eurasian
Indian Lake	Bellmont	Franklin	watermilfoil

			Eurasian
Mountain View	Bellmont	Franklin	watermilfoil
			None
Barnum Pond	Brighton	Franklin	observed
			None
Mountain Pond	Brighton	Franklin	observed
			None
Clear Pond	Duane	Franklin	observed
			None
Eagle Pond	Duane	Franklin	observed
Duals Dand	Franklin	Franklin	None
Buck Pond	Franklin	Franklin	observed None
Loon Lake	Franklin	Franklin	observed
LOUIT Lake	FIGURIII	FIGURIII	None
Rainbow Lake	Franklin	Franklin	observed
Trainbow Earc	TRIMIT	TRIMIT	None
Lake Clear	Harrietstown	Franklin	observed
Zano Gioar	Tiamototown	T TOTAL TOTA	None
Lake Clear Outlet	Harrietstown	Franklin	observed
			None
Stony Creek Ponds	Harrietstown	Franklin	observed
			None
East Pine Pond	Santa Clara	Franklin	observed
			None
Green Pond	Santa Clara	Franklin	observed
			None
Horseshoe Pond	Santa Clara	Franklin	observed
			None
Little Clear Pond	Santa Clara	Franklin	observed
			None
Middle Pond	Santa Clara	Franklin	observed
Dall' an David	0 1 - 01	Facility.	None
Polliwog Pond	Santa Clara	Franklin	observed None
Dalling Dand	Conto Cloro	Franklin	
Rollins Pond	Santa Clara	Franklin	observed None
Whey Pond	Santa Clara	Franklin	observed
Whey i ond	Santa Giara	TTATIKIIT	None
Big Wolf Lake	Tupper Lake	Franklin	observed
Dig iven Lake	rappor zano	T TOTAL TOTA	None
Gull Pond	Tupper Lake	Franklin	observed
-	1111		None
Little Wolf Pond	Tupper Lake	Franklin	observed
			None
Canada Lake	Caroga	Fulton	observed
			Eurasian
East Caroga Lake	Caroga	Fulton	watermilfoil
, and the second			None
Oxbow Lake	Arietta	Hamilton	observed
			None
Piseco Lake	Arietta	Hamilton	observed
			None
Raquette Lake	Arietta	Hamilton	observed

		1	None
Spy Lake	Arietta	Hamilton	observed
			None
Adirondack Lake	Indian Lake	Hamilton	observed
Di a Maradala Lala	I. Partial a	11	None
Blue Mountain Lake	Indian Lake	Hamilton	observed
Cantar Dand	Indian Laka	I loneilton	None
Center Pond	Indian Lake	Hamilton	observed None
Foglo Loko	Indian Lake	Hamilton	observed
Eagle Lake	Illulali Lake	Hamilton	None
Indian Lake	Indian Lake	Hamilton	observed
main Lake	IIIdiaii Lake	Tiamillon	None
Lake Abanake	Indian Lake	Hamilton	observed
Earlo / Ibariano	maian Lako	T IGITIII OIT	Variable-leaf
Lake Durant	Indian Lake	Hamilton	milfoil*
Lake Durant	IIIUIaII Lake	Tiamillon	None
Utowana Lake	Indian Lake	Hamilton	observed
Otowaria Earc	Indian Lake	Tidiffiitoff	None
Cascade Lake	Inlet	Hamilton	observed
Caccado Eano	111100	T IGITIIICOTT	None
Echo Lake	Lake Pleasant	Hamilton	observed
Zono Zano	Lano i loadani	T IGHTIMOT	None
Lake Pleasant	Lake Pleasant	Hamilton	observed
			None
Lake Sacandaga	Lake Pleasant	Hamilton	observed
			None
Lewey Lake	Lake Pleasant	Hamilton	observed
_			None
Whitaker Lake	Lake Pleasant	Hamilton	observed
			None
Brandreth Lake	Long Lake	Hamilton	observed
			None
Chub Lake	Long Lake	Hamilton	observed
			None
Constable Pond	Long Lake	Hamilton	observed
			None
Forked Lake	Long Lake	Hamilton	observed
Laka Fatan	l amm l aka	I loneilton	None
Lake Eaton	Long Lake	Hamilton	observed
l			Variable-leaf
Long Lake	Long Lake	Hamilton	milfoil*
Duradan Laka	1 1 -1	I I a mailt a m	None
Russian Lake	Long Lake	Hamilton	observed
Big Moose Lake	Webb	Herkimer	None observed
big iviouse Lake	WEDD	петкинен	None
Bub Pond	Webb	Herkimer	observed
Dab i oliu	A A G D D	HEIMITIEI	None
Moss Lake	Webb	Herkimer	observed
ooo Lake	11000	TIGHMINIO	None
Sis Pond	Webb	Herkimer	observed
2.3. 0			None
West	Webb	Herkimer	observed
	1	,	1 2 2 3

Brantingham Lake / Lily Pond	Greig	Lewis	None observed
Fond	Greig	LEWIS	None
Chase Lake	Watson	Lewis	observed
			None
Little Long Lake	Woodgate	Oneida	observed
			Eurasian
Lake Luzerne	Lake Luzerne	Saratoga	watermilfoil
			European
Grass River	Clare	St. Lawrence	Frogbit
			Variable-leaf
Cranberry Lake	Clifton	St. Lawrence	milfoil*
,			None
Star Lake	Fine	St. Lawrence	observed
			None
Boot Tree Pond	Piercefield	St. Lawrence	observed
			None
Catamount Pond	Piercefield	St. Lawrence	observed
			None
Deer Pond	Piercefield	St. Lawrence	observed
	D: 6:11	0.1	None
Eagle Crag	Piercefield	St. Lawrence	observed
Horosoboo Loko	Diarostiald	Ct Louronce	None
Horseshoe Lake	Piercefield	St. Lawrence	observed None
Horseshoe Pond	Piercefield	St. Lawrence	observed
Tiorsestice Foria	Flercelleid	St. Lawrence	None
Long Pond	Piercefield	St. Lawrence	observed
Long Fond	1 icrociicia	Ot. Lawrence	None
Massawepie Lake	Piercefield	St. Lawrence	observed
			None
Mount Arab	Piercefield	St. Lawrence	observed
			None
Round Pond	Piercefield	St. Lawrence	observed
			None
Townline Pond	Piercefield	St. Lawrence	observed
Oswegatchie River,			
Brown's Falls			None
Impoundment		St. Lawrence	observed
Sucker Lake	Fine	St Lowronce	None
Sucker Lake	Fine	St. Lawrence	observed
Nauth David	11	10/2	Eurasian
North Pond	Hague	Warren	watermilfoil
Lower Siamese Pond	lohnohura	Warren	None
Lower Stattlese Portu	Johnsburg	vvaiieli	observed None
Thirteenth Lake	Johnsburg	Warren	observed
THIRDORUT LANG	Johnsburg	vvarion	None
Upper Siamese Pond	Johnsburg	Warren	observed
			None
Livingston Lake	Stony Creek	Warren	observed
			None
Crane Mountain Pond	Thurman	Warren	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, and Lake Durant. Although 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, 2002-2007.

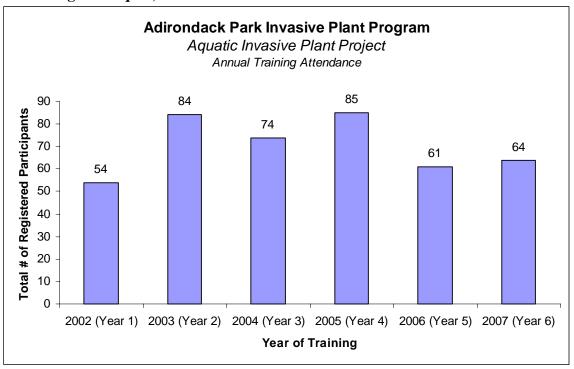


Figure 2. Number of lakes monitored and APIPP volunteers, 2002-2007.

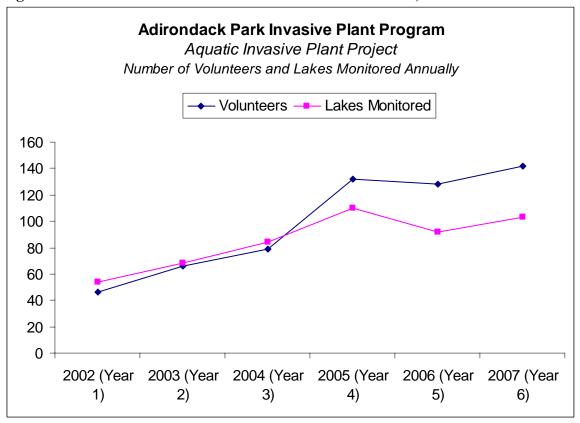


Figure 3. Distribution of lakes monitored by APIPP volunteers, 2002-2007.

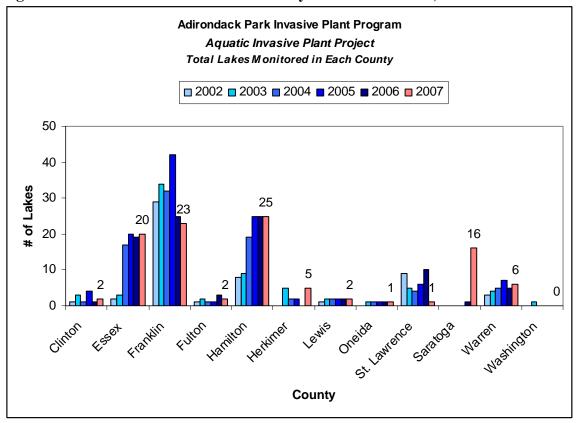


Figure 4. Number of new and returning volunteers by year.

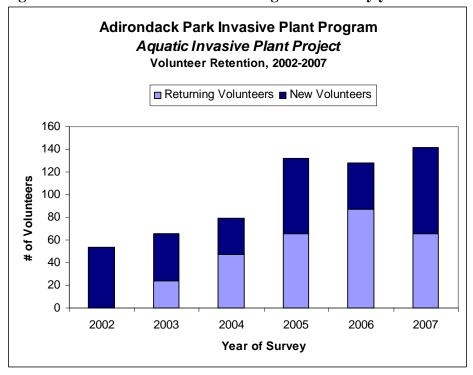
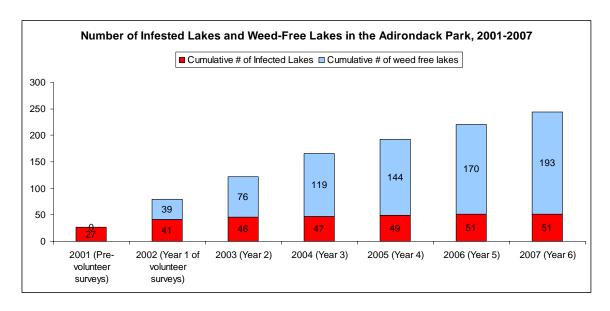
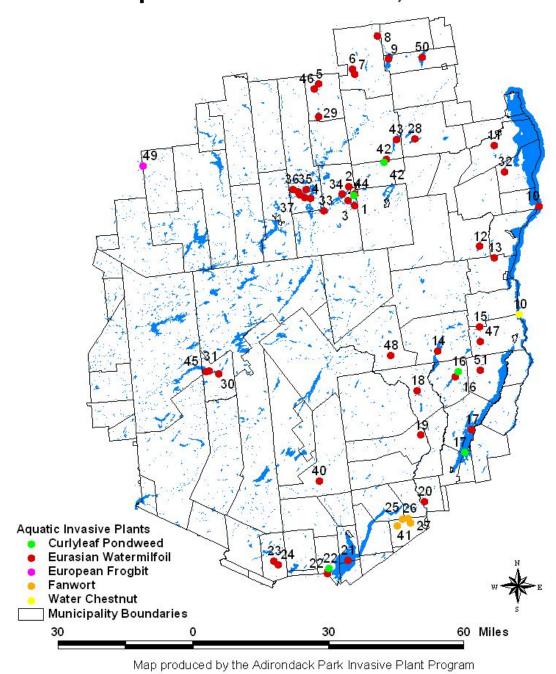


Figure 5. Cumulative number of infested lakes and lakes monitored by APIPP volunteers where no invasive plants were detected.



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

Distribution of Adirondack Lakes with Aquatic Invasive Plants, 2007

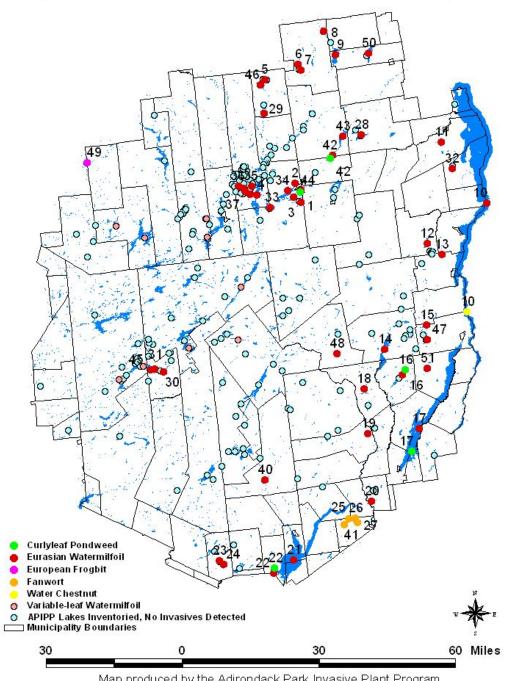


Map 1
Adirondack Park Waterbodies Reported with Aquatic Invasive Plants

	A
1	Oseetah Lake
2	Lake Colby
	Kiwassa Lake
4	Upper Saranac Lake
	Horseshoe Pond
	Indian Lake
7	Mountain View Lake
8	Lower Chateaugay Lake
	Upper Chateaugay Lake
	Lake Champlain
	Augur Lake
	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
	Seventh Lake
	Sixth Lake
	Long Pond
	Middle Saranac Lake
	Lower Saranac Lake
	Follensby Clear Pond
	Floodwood Pond
	Little Square Pond
	Fish Creek Pond
	Copperas Pond
	Lake Algonquin
	Mill Pond
	Franklin Falls
	Union Falls Flow
	Lake Flower
	Fifth Lake
	Deer River Flow
	Putnam Pond
	Minerva Lake
	Grasse River at Lampson Falls
	Chazy Lake
31	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.

Distribution of Lakes Monitored and Waters with Aquatic Invasive Plants in the Adirondack Park, 2007



Map produced by the Adirondack Park Invasive Plant Program