

# **Adirondack Park Invasive Plant Program** **(APIPP)**

## **Aquatic Invasive Plant Project** **Regional Coordinated Monitoring** **2004 Report**

### **Project Goals**

- *Provide coordination and leadership for a "community-based" volunteer monitoring program to collect information on the location and spread of aquatic invasive plants in the Adirondack Park.*
- *Develop a central database of the current aquatic invasive plant distributions in the Adirondack Park.*
- *Disseminate information to promote an understanding of invasive species impacts and their implications for aquatic resource protection.*

### **Distribution Summary**

- In 2001, 27 lakes were reported with aquatic invasive plants and currently 47 lakes are reported with aquatic invasive plants in the Adirondack Park (Map 1). In three seasons 125 APIPP Invasive Plant Monitors surveyed 128 distinct waters. 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!

The following objectives were set and accomplished in 2004 with the assistance of partner organizations, Advisory Panel members, resident groups, and volunteers:

### ***2004 Training***

- Provided training sessions in invasive and native plant identification and monitoring techniques. Representatives 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, Kaitlin Stewart, and Elizabeth Mangle, Hamilton County Soil and Water Conservation District (HCSWCD); and Peter Bauer, Residents' Committee to Protect the Adirondacks.

- Trained 16 participants at Bolting Landing, 17 at Newcomb, and 41 in Blue Mountain Lake (Figure 1).
- Distributed training manuals and secondary education resources for volunteer use.

### ***Potential Plant Threats***

- Aquatic Project volunteers actively monitored for Eurasian watermilfoil, water chestnut, curlyleaf pondweed, and fanwort. In 2004, the Project also elevated awareness about other potential plant threats listed below. There are native look-alikes, and web links are cited for species information and identification tips. In the Adirondack Park, European frog-bit and yellow floating heart are present in Lake Champlain.

European frog-bit (*Hydrocharis morsus-ranae*)

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

Yellow floating heart (*Nymphoides peltata*)

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

Brittle or slender naiad (*Najas minor*)

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

Parrotfeather (*Myriophyllum aquaticum*)

<http://plants.ifas.ufl.edu/myaqp.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>

### ***2004 Monitoring***

- Implemented protocol for regional volunteer monitoring for aquatic invasive plants.
- Surveyed 84 Adirondack lakes with assistance of Project partner staff and 79 volunteer monitors (Table 1, Figure 2).
- Accrued more than 300 volunteer monitoring hours.

### ***Distribution Analysis***

- Conducted preliminary analysis of the distribution of surveyed and infested waters:
  - 47 lakes documented with aquatic invasive plants
  - 65 DEC launches in the Park (approximately)
    - 21 lakes infested
    - 28 lakes surveyed by volunteers, no infestations observed
    - 16 lakes still to be surveyed

### ***2004 Voucher specimens***

- 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).

### ***Data storage and Website development***

- 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 2004.
- Updated data, maps, and text on the Adirondack Park Invasive Plant Program website, <http://www.adkinvasives.com>. The website is best viewed on the browser Internet Explorer or the newest version of Netscape Navigator. The site provides Program information, invasive plant descriptions, images, and survey data and maps from the Adirondack region.
- Created a comprehensive site map of waterbodies in the Adirondack Park reported with aquatic invasive plants and lakes surveyed by APIPP volunteers (Map 2).

**In April 2004, the Adirondack Park Invasive Plant Program's principal partner agencies reissued their Memorandum of Understanding. APIPP now jointly coordinates the Aquatic Invasive Plant Project and the Terrestrial Invasive Plant Project. In August, APIPP was awarded an Exemplary Ecosystem Initiative by the Federal Highways Administration. Many training and outreach initiatives are combined. Below is a summary of general APIPP training and outreach achievements in 2004.**

***APIPP Training in Invasive Plant Threats, Impacts, Identification, Inventory, and Spread Prevention Techniques. Professional audiences included:***

- DEC Interpretive staff in the Adirondack Park and Catskills; Region 5 Fisheries staff, Environmental Conservation Officers, Forest Rangers, and Ray Brook Operations Working Circle staff;
- DOT construction and maintenance crews and local highway departments; and,
- Paul Smiths College Watershed Stewards, Adirondack Mountain Club and Adirondack Lakes Survey Corporation staff.

### ***2004 APIPP Education efforts***

- Reached more than 6,000 individuals through presentations by principal partner agency representatives.

- Included APIPP information in the Cooperative Loon Project training manual and Adirondack Lakes and Trails brochure.
- Distributed APIPP educational materials through the Adirondack Council Outreach Intern at community events.
- Created a “Clean Your Boat Before You Float” handout in cooperation with the Rainbow Lake Association and Upper Saranac Lake Foundation for distribution at the Fish Creek and Rollins Pond Campgrounds.
- Created and distributed an online APIPP newsletter.  
[http://www.adkinvasives.com/documents/ROOTSNov04\\_001.pdf](http://www.adkinvasives.com/documents/ROOTSNov04_001.pdf)
- Highlighted in numerous newspapers; spotlighted in the following newsletters: Adirondack Council, Adirondack Landowners Association, Audubon, Hamilton County Cornell Cooperative Extension, and the St. Regis Mohawk Tribe; featured in the following journals and magazines: AJES, Adirondac, Adirondack Explorer; interviewed twice on WNBZ AM radio; and, featured in Elevation Films, Inc. for NYS DOT “Better Than Before” video series.

### ***2004 Outreach efforts***

- Presented to the NYS Invasive Species Task Force and participated in its Aquatic Ad-Hoc Team.
- Presented APIPP at the following conferences: *Local Government Day, Adirondack Research Consortium, Paul Smiths College Water Quality Conference, Lake George Watershed Conference, NYS Wetlands Forum, American Fisheries Society, Garden Club of America Zone III Annual Conservation Committee Meeting, the International Society of Wetland Scientists, and the NorthEastern Aquatic Nuisance Species Regional Panel.*
- Participated in Adirondack Waterfest, Blue Mtn Lake Garden Festival, Water Chestnut Forum, Adirondack Teachers Workshop, EMS Conservation Day, and the Lincoln Pond Biological Control workshop.
- Sent introductory letter to Soil and Water Conservation Districts.
- Updated the Adirondack Park Invasive Plant list-serve, [http://groups.yahoo.com/group/Adirondack\\_Invasives/](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.
- Collaborated and shared resources with the Long Island Weed Management Area (LI-WMA) and the recently formed, St. Lawrence Eastern Lake Ontario Weed Management Area (SLELO-WMA).

### ***2004 Management***

- Contributed invasive plant inventory, management, and education recommendations to Unit Management Plans including Wilmington Wild Forest, Jessup River Wild Forest, Siamese Ponds Wilderness, Vanderwacker Mountain Wild Forest, Moose River Wild Forest, and St. Regis Canoe Area.

### ***2004 Funding***

- Received short-term funds from DOT/Federal Highways Administration and DEC.
- Submitted numerous grants for additional funds.
- Secured funding for 2005 through the FHWA Scenic Byways Program.

### **2005 Aquatic Invasive Plant Project Objectives**

- Implement the Scenic Byways Invasive Plant Project (funding provided by Federal Highways Administration and managed by the Adirondack North Country Association). The Project will allow the hire of two stewards who will assist terrestrial invasive plant inventory and control, and aquatic plant education at state boat launches.
- Initiate relationship with Paul Smiths College Adirondack Watershed Institute to assist preliminary aquatic plant data analysis to facilitate the development of a regional prevention and management strategy.
- Retain volunteer monitors and build volunteer base in communities with few or no volunteers. Continue collaborating with volunteers of the Adirondack Lake Assessment Program and the Residents' Committee to Protect the Adirondacks.
- Complete surveys of priority waters and assist volunteers with monitoring efforts.
- Create plant fact sheets for potential plant threats.
- Investigate opportunities to expand training program.
- Participate in planning and promotion of the Third Annual Paul Smiths College Water Quality Conference, August 15-17, 2005. This year's theme: Aquatic Nuisance Species.
- Assist the implementation of the Lake Champlain Aquatic Nuisance Species Management Plan, and assist the planning and development of an Adirondack Park Aquatic Nuisance Species Management Plan
- Continue to provide information as requested by the New York State Invasive Species Task Force.

**Please see attached map and document with tables and figures.**

**Thank You and See You on the Water in 2005!!**

**Table 1. APIPP lakes surveyed in 2004 and aquatic invasive plants observed.**  
*Alphabetized by county and town. Please refer to website for detailed plant survey reports for lakes listed below. <http://www.adkinvasives.com>*

<b>Lake Surveyed</b>	<b>Town</b>	<b>County</b>	<b>Invasive Plants Found</b>	<b>Year Surveyed</b>
Silver Lake	Black Brook	Clinton	None observed	2003-04
Mill Pond	Elizabethtown	Essex	None observed	2004
Murrey Pond	Elizabethtown	Essex	None observed	2004
Russett Pond	Elizabethtown	Essex	None observed	2004
Tanaher Pond	Elizabethtown	Essex	None observed	2004
Lower Cascade Lake	Keene	Essex	None observed	2004
Upper Cascade Lake	Keene	Essex	None observed	2004
Minerva Lake	Minerva	Essex	None observed	2004
Newport Pond	Moriah	Essex	None observed	2004
Rich Lake	Newcomb	Essex	None observed	2004
Zack Lake	Newcomb	Essex	None observed	2004
Lake Placid	North Elba	Essex	None observed	2002-04
Mirror Lake	North Elba	Essex	None observed	2003-04
Alder Pond	Schroon Lake	Essex	None observed	2004
Crane Pond	Schroon Lake	Essex	None observed	2004
Moose Pond	St. Armand	Essex	None observed	2003-04
Putnam Pond	Ticonderoga	Essex	Eurasian watermilfoil	2004
Rock Pond	Ticonderoga	Essex	None observed	2004
Big Wolf Lake	Altamont	Franklin	None observed	2003-04
Gull Pond	Altamont	Franklin	None observed	2002-04
Little Wolf Pond	Altamont	Franklin	None observed	2003-04
Barnum Pond	Brighton	Franklin	None observed	2002-04
Black Pond	Brighton	Franklin	None observed	2002, 04
Jones Pond	Brighton	Franklin	None observed	2002-04
Lower St. Regis	Brighton	Franklin	None observed	2002-04
Mountain Pond	Brighton	Franklin	None observed	2002-04
Osgood Pond	Brighton	Franklin	None observed	2002-04
Spitfire Lake	Brighton	Franklin	None observed	2002-04
Upper St. Regis	Brighton	Franklin	None observed	2002-04
Clear Pond	Duane	Franklin	None observed	2004
Deer River Flow	Duane	Franklin	Eurasian watermilfoil	2003-04
Eagle Pond	Duane	Franklin	None observed	2002-04
Horseshoe Pond	Duane	Franklin	Eurasian watermilfoil	2002-04
Kushaqua	Franklin	Franklin	None observed	2003-04

Loon Lake	Franklin	Franklin	None observed	2004
Rainbow Lake	Franklin	Franklin	None observed	2002-04
Bear Pond	Harrietstown	Franklin	None observed	2004
Lake Clear	Harrietstown	Franklin	None observed	2002-04
Lake Flower	Harrietstown	Franklin	Eurasian watermilfoil	2003-04
Oseetah Lake	Harrietstown	Franklin	Eurasian watermilfoil	2003-04
Stony Creek Ponds	Harrietstown	Franklin	None observed	2003-04
Bog Pond	Santa Clara	Franklin	None observed	2004
Copperas Pond	Santa Clara	Franklin	Eurasian watermilfoil	2002-04
Follensby Clear Pond	Santa Clara	Franklin	Eurasian watermilfoil	2002, 04
Hoel Pond	Santa Clara	Franklin	None observed	2002-04
Little Clear Pond	Santa Clara	Franklin	None observed	2003-04
Middle Pond	Santa Clara	Franklin	None observed	2003-04
Rollins Pond	Santa Clara	Franklin	None observed	2003-04
Whey Pond	Santa Clara	Franklin	None observed	2003-04
Simond Pond	Tupper Lake	Franklin	None observed**	2003-04
Holmes Lake	Bleeker	Fulton	None observed	2004
Oxbow Lake	Arietta	Hamilton	None observed	2004
Raquette Lake	Arietta	Hamilton	None observed	2004
Lake Durant	Blue Mountain Lake	Hamilton	None observed	2004
Blue Mountain Lake	Indian Lake	Hamilton	None observed	2004
Eagle Lake	Indian Lake	Hamilton	None observed	2004
Indian Lake	Indian Lake	Hamilton	None observed	2002-03
6th Lake	Inlet	Hamilton	Eurasian watermilfoil	2002-04
7th Lake	Inlet	Hamilton	Eurasian watermilfoil	2002-04
Gilman Lake	Lake Pleasant	Hamilton	None observed	2004
Lake Pleasant	Lake Pleasant	Hamilton	None observed	2003-04
Lake Sacandaga	Lake Pleasant	Hamilton	None observed	2003-04
Lewey Lake	Lake Pleasant	Hamilton	None observed	2004
Mason Lake	Lake Pleasant	Hamilton	None observed	2004
Whitaker Lake	Lake Pleasant	Hamilton	None observed	2004
Brandreth Lake	Long Lake	Hamilton	None observed	2003-04
Lake Eaton	Long Lake	Hamilton	None observed	2004
Little Tupper Lake	Long Lake	Hamilton	None observed	2004
Long Lake	Long Lake	Hamilton	None observed	2003-04
Round Lake	Long Lake	Hamilton	None observed	2004
Limekiln Lake	Ohio	Herkimer	None observed	2004
Nicks Lake	Webb	Herkimer	None observed	2004

Brantingham Lake / Lily Pond	Greig	Lewis	None observed	2002-04
Chase Lake	Watson	Lewis	None observed	2003-04
Little Long Lake	Woodgate	Oneida	None observed	2003-04
Cranberry Lake	Clifton	St. Lawrence	Variable-leaf Milfoil*	2002-04
Eagle Crag	Piercefield	St. Lawrence	None observed	2002-04
Mount Arab	Piercefield	St. Lawrence	None observed	2002-04
Piercefield Flow	Piercefield	St. Lawrence	None observed**	2004
Austin Pond	Johnsburg	Warren	None observed	2002-04
Garnet Lake	Johnsburg	Warren	None observed	2002-04
Thirteenth Lake	Johnsburg	Warren	None observed	2003-04
Livingston Lake	Stony Creek	Warren	None observed	2003-04
Wilcox Lake	Stony Creek	Warren	None observed	2004

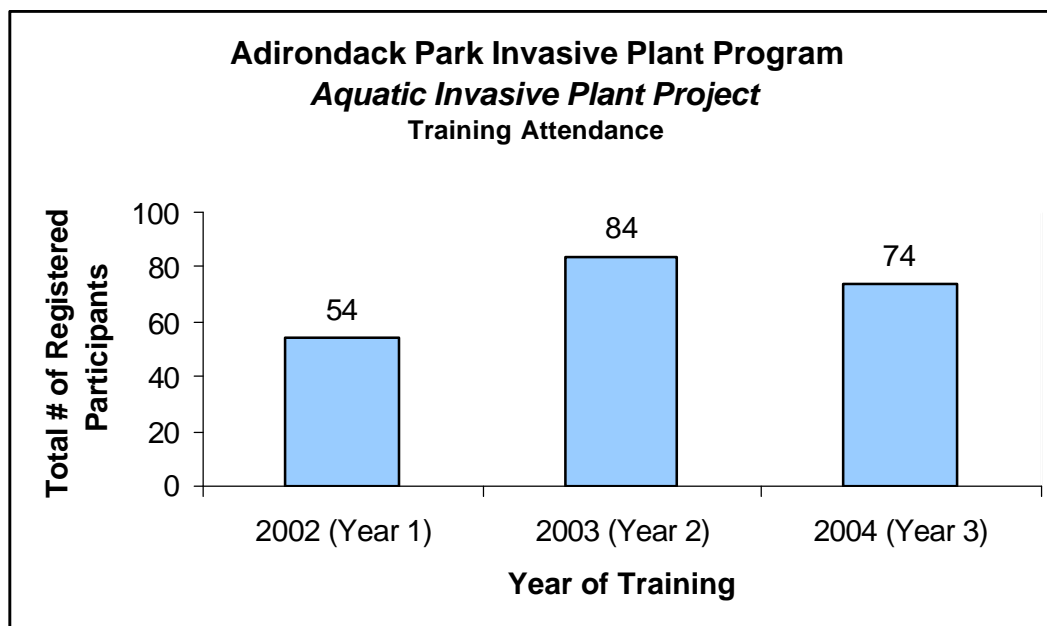
\* *Myriophyllum heterophyllum*, variable-leaf watermilfoil, was observed during plant surveys in Cranberry Lake and Newton Falls Impoundment (Chaumont Pond) in 2002, and in Jenkins Bay of Tupper Lake in 2003. *Myriophyllum heterophyllum* is considered an invasive plant in New Hampshire, Maine, Connecticut, and Massachusetts. It is included as a 'watched species' in the Adirondack Park.

\*\* Milfoil samples that may have been variable-leaf milfoil were observed but not verified in Simond Pond and Piercefield Flow. Samples will be vouchered in 2005.

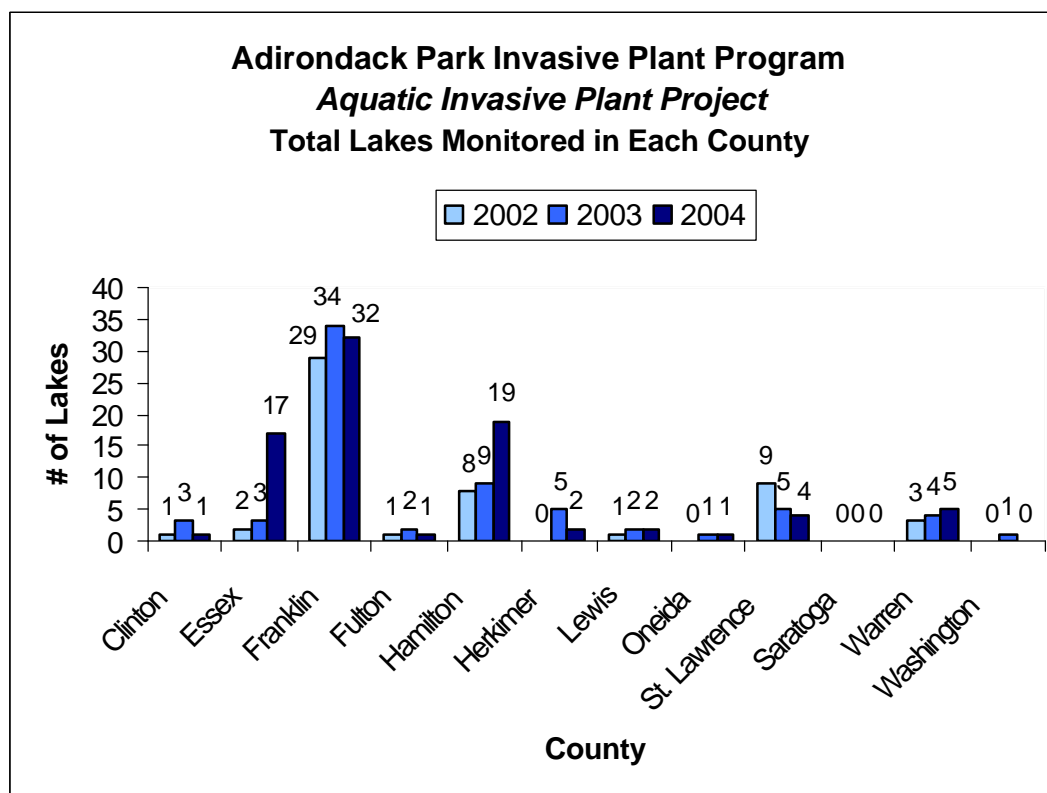
**Table 2. APIPP lakes with voucher specimens on file with the Adirondack Park Invasive Plant Program.**

<b>Lake Name</b>	<b>Voucher specimen</b>
7 <sup>th</sup> Lake Fulton Chain	Eurasian watermilfoil
Brant 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
Kiawassa Lake	Eurasian watermilfoil
Lake Flower	Eurasian watermilfoil, curlyleaf pondweed
Little Square Pond	Eurasian watermilfoil
Long Pond, Willsboro	Eurasian watermilfoil
Meacham Lake	Eurasian watermilfoil
Putnam Pond	Eurasian 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, 2002-2004.**

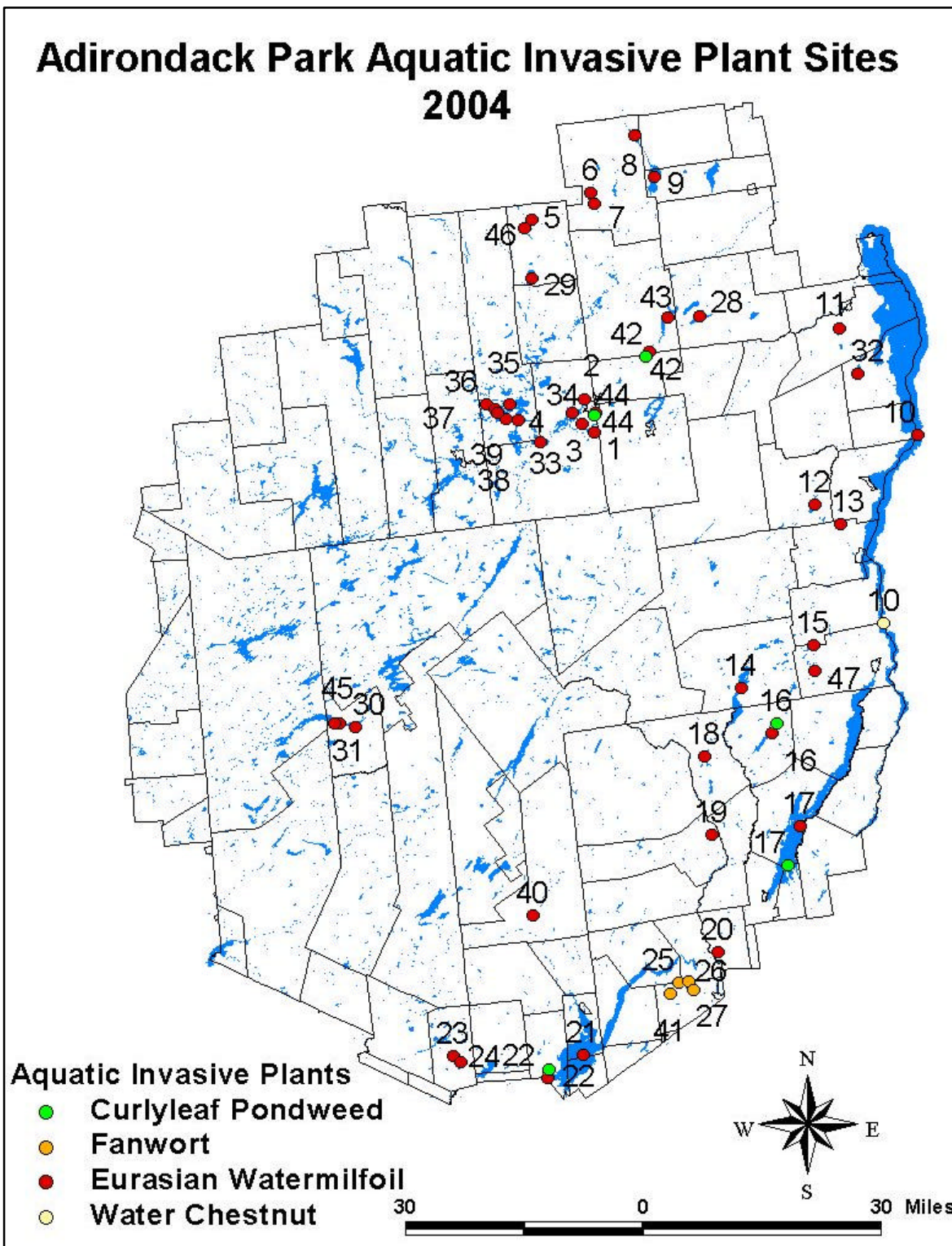


**Figure 2. Distribution of lakes monitored by APIPP volunteers, 2002-2004.**



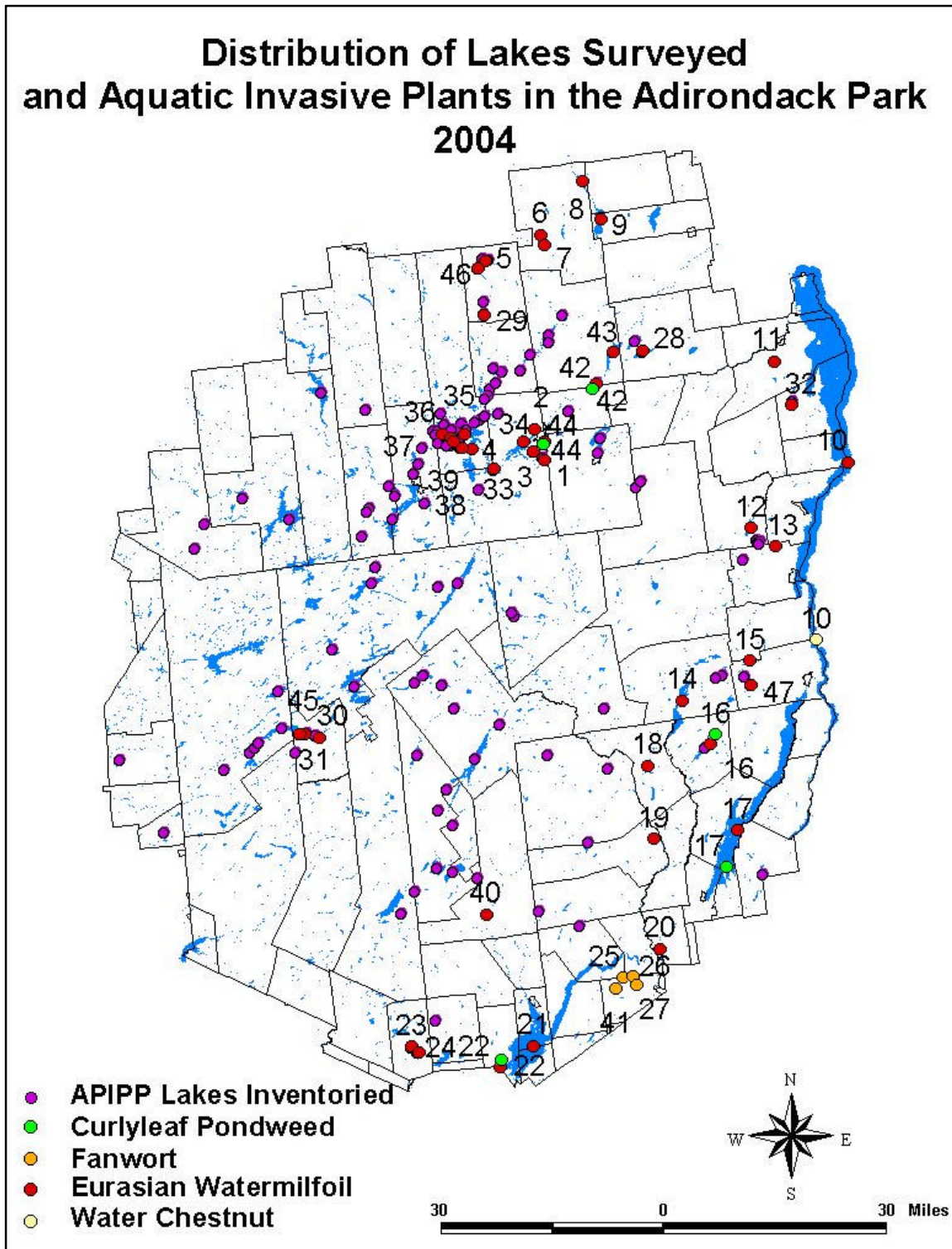
The Adirondack Park Invasive Plant Program is a partnership program among the Adirondack Nature Conservancy, New York State Departments of Environmental Conservation and Transportation, Adirondack Park Agency, Invasive Plant Council of New York State and Adirondack communities.

Map 1.



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Map 2.



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