

**ANNUAL REPORT - 1998**  
**DARRIN FRESH WATER INSTITUTE**  
**AQUATIC PLANT IDENTIFICATION PROGRAM**

Prepared by

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Darrin Fresh Water Institute Report #99-2

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For the twelfth year, the Darrin Fresh Water Institute (DFWI) has continued the Aquatic Plant Identification Program. This program was initiated as a public service for the Lake George basin, in which individuals could bring specimens to DFWI for identification. In return, it assisted DFWI in locating new Eurasian Watermilfoil and Curly-leaf Pondweed sites throughout the Lake George basin. DFWI now provides the opportunity for anyone in New York State to have plant specimens verified. This also enables us to maintain a list of locations of invasive aquatic plants such as Waterchestnut (*Trapa natans*), Curly-leaf Pondweed (*Potamogeton crispus*), Eurasian Watermilfoil (*Myriophyllum spicatum*) and Fanwort (*Cabomba caroliniana*) in New York State.

During 1998, six specimens were received and identified (Table 1). One of the specimens was an exotic species, Waterchestnut (*Trapa natans*) from Buckingham Lake in Albany.

At the conclusion of 1998, 122 lakes in 43 counties had confirmed populations of Eurasian watermilfoil, 40 lakes in 23 counties had confirmed populations of Curly-leaf Pondweed and 4 lakes in 2 counties had Fanwort. Waterchestnut was found mainly in the Hudson and Mohawk Rivers systems, however ten lakes and 15 counties were reported.

The extension of this program has benefited regional lake associations and municipalities. We have identified samples from numerous area lakes other than Lake George. Most often the specimens have not been exotic species, and therefore the concerns of lake residents have often been allayed. In the other instances, it has provided the impetus for concerted action on the part of the lake association.

As a part of this program, DFWI maintains an expanding list of sites we have verified to contain Eurasian Watermilfoil (Table 2, Figure 1), Waterchestnut (Table 3, Figure 2), Curly-leaf Pondweed (Table 4, Figure 3) and Fanwort (Table 5) in New York State. The list remains preliminary, since we currently lack verified sources for many lakes in which these species have been reported to occur. We will only add sites to the list for which an authoritative reference can be given, or for which we have a voucher specimen. We would appreciate receiving reports or other publications listing verified occurrences of these plants.

The Aquatic Plant Identification Program of Rensselaer's Darrin Fresh Water Institute will continue to be offered as a public service during 1999. In order to have samples identified, bring or send them to the DFWI at either the Troy campus or Bolton Landing facility. For more information, see the notice provided as Appendix A of this report.

**Table 1.** Specimens Identified by the Rensselaer Darrin Fresh Water Institute Aquatic Plant Identification Program in 1998.

**DFWI AQUATIC PLANT IDENTIFICATION PROGRAM – 1998**

<u>SPECIES</u>	<u>Sample Number</u>	<u>DATE</u>	<u>LOCATION</u>
<i>Ranunculus longirostris</i>	98-01	7/16/98	Thompsons Lake, NY
<i>Eriocaulon septangulare</i>	98-02	7/27/98	Brant Lake, NY
<i>Potamogeton perfoliatus</i>	98-03	8/3/98	Lake George, Bolton, NY
<i>Vallisneria americana</i>	98-04	8/3/98	Lake George, Bolton, NY
<i>Elodea canadensis</i>	98-05	8/3/98	Lake George, Bolton, NY
<i>Trapa natans</i>	98-06	6/20/98	Buckingham Lake, Albany, NY

**Table 2.** Locations in New York State with Eurasian Watermilfoil (*Myriophyllum spicatum*).

<u>LAKE</u>	<u>COUNTY</u>	<u>REFERENCE</u>
Alcove Reservoir	Albany	NYS DEC 1989
Ann Lee Pond	Albany	NYS DEC
Basic Creek Reservoir	Albany	NYS DEC 1989
Thompsons Lake	Albany	CSLAP, 1998
Warners Lake	Albany	NYS DEC 1989
Watervliet Reservoir	Albany	RFWI 1989
Cuba Lake	Allegheny	CSLAP, 1994
Whitney Pt. Reservoir	Broome	Titus, J.
Susquehanna River	Broome	Titus, J.
Cuba Lake	Cattaraugus	CSLAP
Cayuga Lake	Cayuga	NYS DEC, Miller, 1978
Como Lake	Cayuga	Miller, 1978
Cross Lake	Cayuga	NYS DEC, Miller, 1978
Duck Lake	Cayuga	Miller, 1978
Little Sodus Bay	Cayuga	NYS DEC, Miller, 1978
Owasco Lake	Cayuga	NYS DEC, Miller, 1978

**Table 2.** Locations in New York State with Eurasian Watermilfoil  
(*Myriophyllum spicatum*).

<u>LAKE</u>	<u>COUNTY</u>	<u>REFERENCE</u>
Cassadaga Lakes	Chautauqua	NYS DEC
Chautauqua Lake	Chautauqua	CSLAP
Findley Lake	Chautauqua	CSLAP
Lime Lake	Chautauqua	CSLAP
Chenango Lake	Chenango	LCI, 1998
Guilford Lake	Chenango	LCI, 1998
Lake Warn	Chenango	CSLAP
Plymouth Reservoir	Chenango	CSLAP
Lake Champlain	Clinton	NYS DEC
Copake Lake	Columbia	CSLAP
Queechy Lake	Columbia	CSLAP
Robinson Pond	Columbia	CSLAP
Melody Lake	Cortland	CSLAP
Tully Lake	Cortland	LCI, 1998
Upper Little York Lake	Cortland	LCI, 1998
Sepasco Lake	Dutchess	CSLAP, 1995
Wappinger Lake	Dutchess	NYS DEC
Augur Lake	Essex	APIP 1990
Bartlett Pond	Essex	Adk Ecol, 1998
Eagle Lake	Essex	APIP 1987, Taggett 1988
Lincoln Pond	Essex	Adk Ecol, 1998
Schroon Lake	Essex/Warren	Adk Ecol, 1995, Taggett 1988
Oseetah Lake	Essex/Franklin	APIP 1991
East Caroga Lake	Fulton	NYS DEC
West Caroga Lake	Fulton	APIP, 1994
Great Sacandaga Lake	Fulton	RFWI 1989
Indian Lake	Franklin	Adk Ecol, 1998
Lake Kiwassa	Franklin	CSLAP
Lake Titus	Franklin	APIP 1990
Mountain View Lake	Franklin	CSLAP, 1995
Lower Chateaugay Lake	Franklin	CSLAP
Upper Chateaugay Lake	Franklin	CSLAP
Upper Saranac Lake	Franklin	APIP, 1996
Sleepy Hollow Lake	Greene	RFWI 1989
Butterfield Lake	Jefferson	CSLAP
Lake Ontario	Jefferson	Reed, 1977
Moon Lake	Jefferson	CSLAP
Lake Bonaparte	Lewis	CSLAP
Conesus Lake	Livingston	CSLAP
Cazenovia Lake	Madison	CSLAP
DeRuyter Reservoir	Madison	CSLAP
Lake Moraine	Madison	CSLAP
Tuscarora Lake	Madison	CSLAP
Onondaga Lake	Onondaga	Madsen et al., 1992
Canandaigua Lake	Ontario	Gilman, 1985
Honeoye Lake	Ontario	NYS DEC, Gilman, 1985
Greenwood Lake	Orange	NYS DEC
Round Lake	Orange	CSLAP
Walton Lake	Orange	NYS DEC

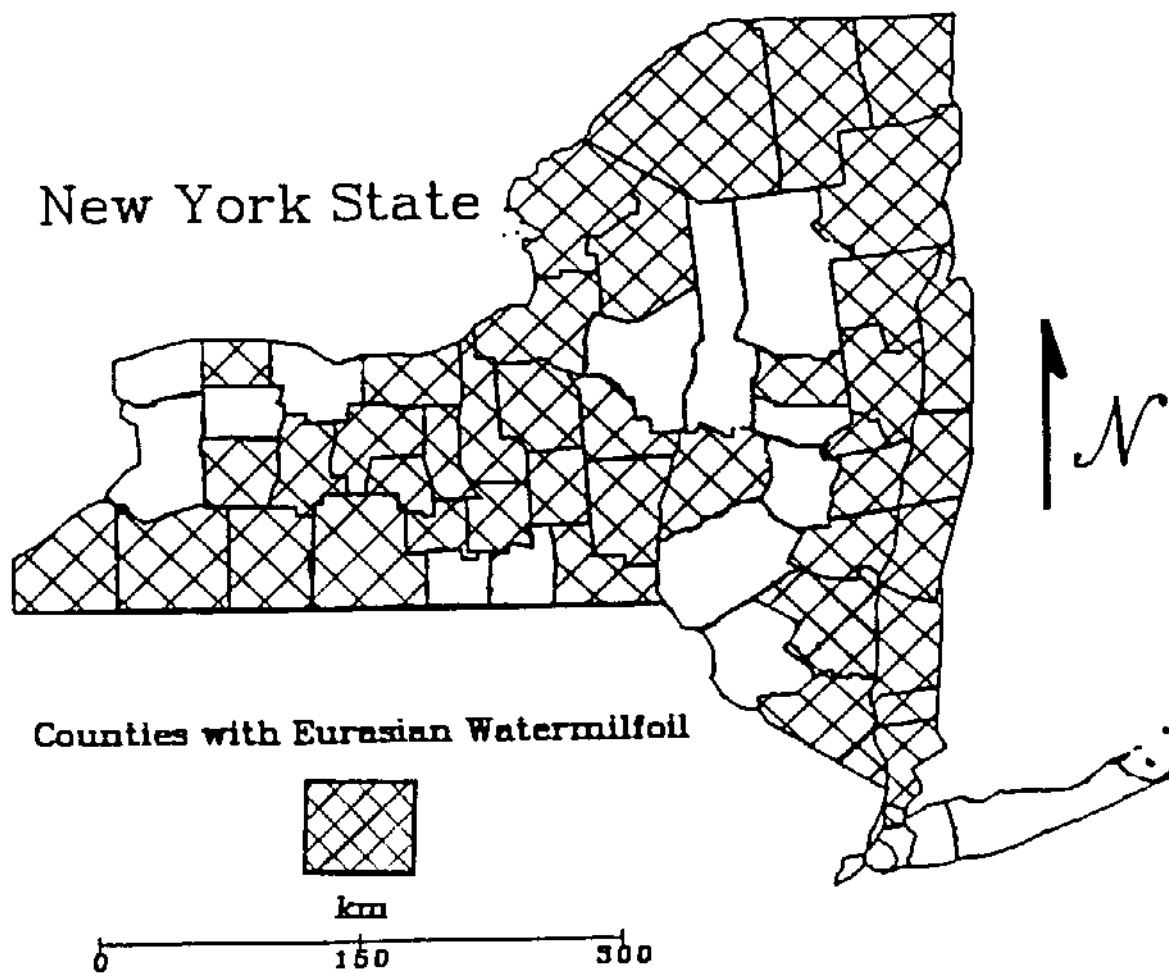
**Table 2.** Locations in New York State with Eurasian Watermilfoil  
(*Myriophyllum spicatum*).

<u>LAKE</u>	<u>COUNTY</u>	<u>REFERENCE</u>
Lake Alice	Orleans	CSLAP, 1994
Paddy's Lake	Oswego	Reed, 1977
Canadarago Lake	Otsego	CSLAP
Otsego Lake	Otsego	Titus, J.
Kirk Lake	Putnam	APIP, 1992
Lake Carmel	Putnam	CSLAP
Lake Mahopac	Putnam	CSLAP
Lake Oscawana	Putnam	CSLAP
Lake Tibet	Putnam	CSLAP
Castleton Reservoir	Rensselaer	Bagdon Env. Assoc., 1989
Crooked Lake	Rensselaer	Soracco 1990
Crystal Lake	Rensselaer	APIP 1988
Glass Lake	Rensselaer	Soracco 1990
Hampton Manor Lake	Rensselaer	Soracco 1990
Long Pond	Rensselaer	CSLAP
Pine Lake	Rensselaer	Soracco 1990
Reichards Lake	Rensselaer	Soracco 1990
Grafton Lakes 2nd Pond	Rensselaer	APIP 1994
Snyders Lake	Rensselaer	NYS DEC, FWI APIP 1988
Third Burden Lake	Rensselaer	APIP 1994
Vanderhyden Reservoir	Rensselaer	Soracco 1990
Foxwood Pond	Rockland	NYSDEC, 1996
Haverstraw Bay	Rockland	Menzie, 1979
Ballston Lake	Saratoga	CSLAP
Galway Lake	Saratoga	RFWI 1989
Moreau Lake	Saratoga	NYS DEC
Round Lake	Saratoga	NYS DEC
Saratoga Lake	Saratoga	RFWI 1985
Duck Pond	Schenectady	NYS DEC
Mohawk River	Schenectady	NYS DEC
Lamoka Lake	Schuyler/Yates	CSLAP
Waneta Lake	Schuyler/Yates	NYS DEC
Seneca Lake	Seneca/Ontario/Yates	NYS DEC, Gilman
Seneca River	Seneca	Reed, 1977
Black Lake	St. Lawrence	CSLAP
Lake Salubria	Steuben	CSLAP, 1998
Dryden Lake	Tompkins	Gilman
Esopus Creek, Saugerties	Ulster	NYSDEC, 1996
Brant Lake	Warren	APIP 1989, Eichler 1990
Crandall Pond	Warren	RFWI 1987
Daggett Lake	Warren	APIP 1989
Glen Lake	Warren	RFWI 1989
Lake George	Warren/Essex/Washington	RFWI
Lake Luzerne	Warren	NYS DEC, APIP 1989
Schroon Lake	Warren/Essex	Taggett 1988, APIP 1990
Cossayuna Lake	Washington	NYS DEC
Hedges Lake	Washington	CSLAP
Lake Lauderdale	Washington	CSLAP
Summit Lake	Washington	CSLAP

**Table 2.** Locations in New York State with Eurasian Watermilfoil  
(*Myriophyllum spicatum*).

<u>LAKE</u>	<u>COUNTY</u>	<u>REFERENCE</u>
East Bay	Wayne	Gilman
Port Bay	Wayne	Gilman
Sodus Bay	Wayne	NYS DEC
Lake Lincolndale	Westchester	CSLAP
Lake Waccabuc	Westchester	CSLAP
Mohansic Lake	Westchester	NYSDEC
Silver Lake	Wyoming	CSLAP
Keuka Lake	Yates	Gilman

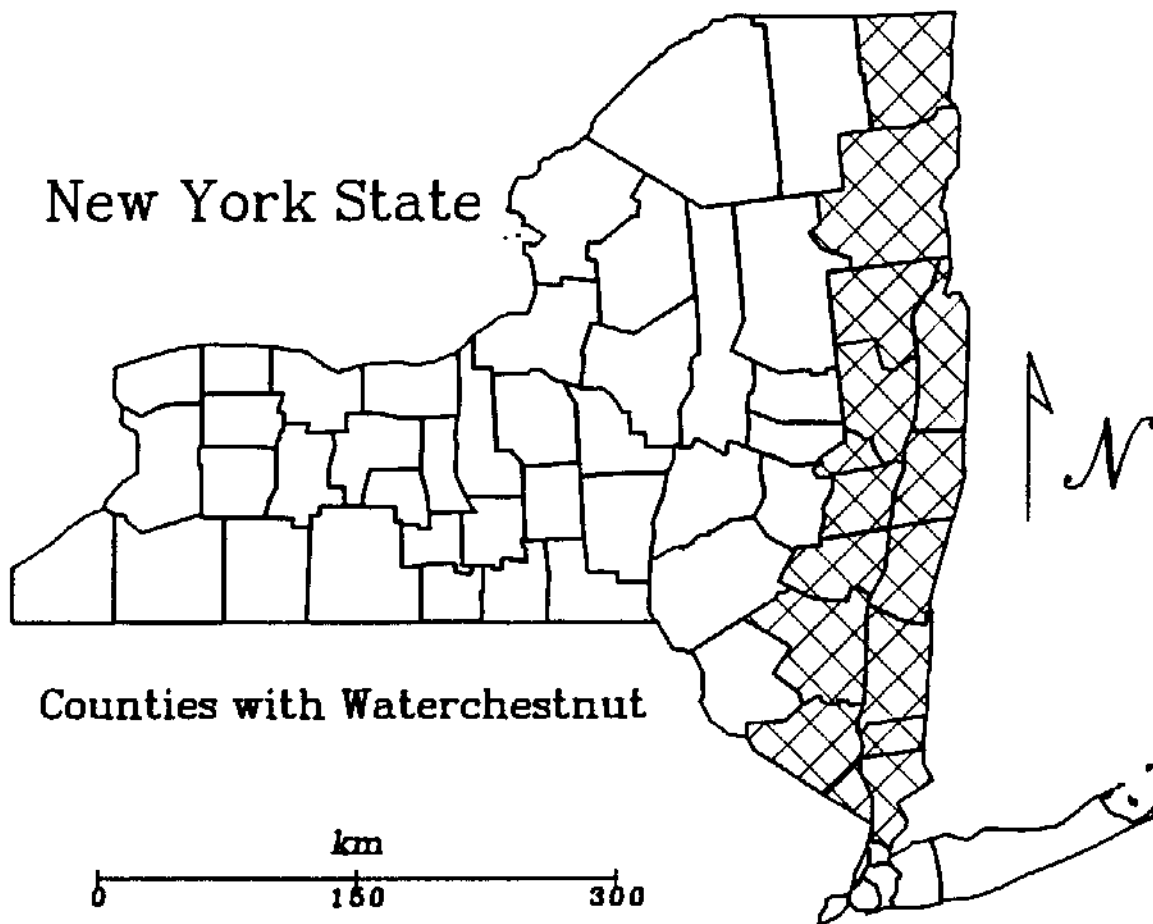
**Figure 1.** New York State counties with Eurasian Watermilfoil (*Myriophyllum spicatum*).



**Table 3.** Locations in New York State with Waterchestnut (*Trapa natans*)

<u>LAKE</u>	<u>COUNTY</u>	<u>REFERENCE</u>
Buckingham Pond	Albany	APIP 1998
Hudson River	Albany	NYSDEC
Mohawk River	Albany	NYSDEC
Watervliet Res.	Albany	RFWI, 1989
Lake Champlain	Clinton	NYSDEC
Hudson River	Columbia	NYSDEC
Hudson River	Dutchess	NYSDEC
Lake Champlain	Essex	NYSDEC
Hudson River	Green	NYSDEC
Hudson River	Orange	NYSDEC
Hudson River	Putnam	NYSDEC
Lake Oscawana	Putnam	CSLAP, 1998
First Burden Lake	Rensselaer	CSLAP, 1998
Hampton Lake	Rensselaer	LCI, 1998
Hudson River	Rensselaer	NYSDEC
Nassau Lake	Rensselaer	CSLAP
Tamarack Pond	Rensselaer	Soracco, 1991
Hudson River	Rockland	NYSDEC
Ballston Lake	Saratoga	CSLAP
Saratoga Lake	Saratoga	CSLAP
Mohawk River	Schenectady	NYSDEC
Hudson River	Ulster	NYSDEC
Lake Champlain	Washington	NYSDEC
Hudson River	Westchester	NYSDEC

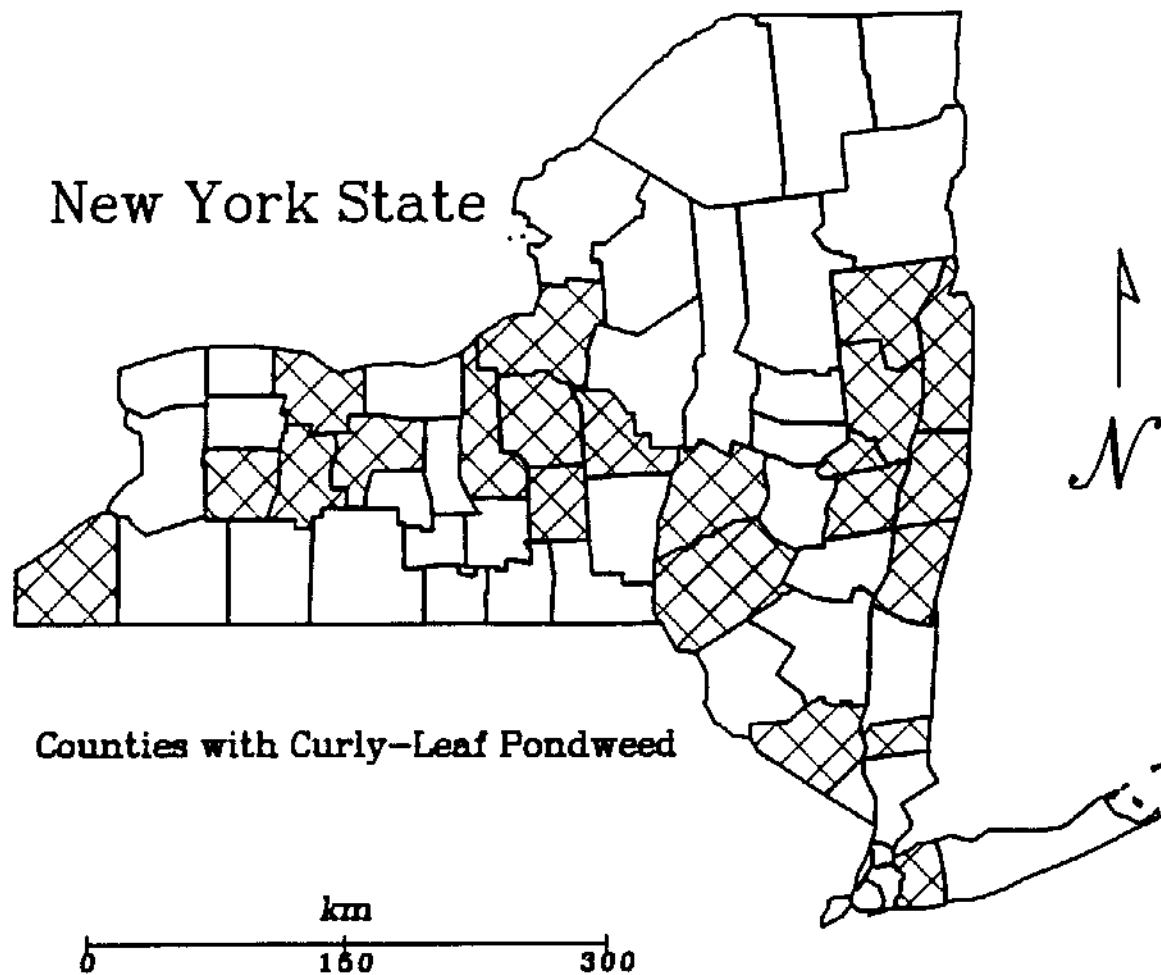
**Figure 2.** New York State counties with Waterchestnut (*Trapa natans*)



**Table 4.** Locations in New York State with Curly-leaf Pondweed (*P. crispus*)

<u>LAKE</u>	<u>COUNTY</u>	<u>REFERENCE</u>
Watervliet Res.	Albany	RFWI, 1989
Cayuga	Cayuga	Miller, 1978
Como	Cayuga	Miller, 1978
Cross	Cayuga	Miller, 1978
Little Sodus	Cayuga	Miller, 1978
Owasco	Cayuga	Miller, 1978
Skaneateles	Cayuga	Miller, 1978
Chautauqua Lake	Chautauqua	CSLAP
Copake Lake	Columbia	CSLAP, 1998
Long Pond	Columbia	LCI, 1996
Queechy Lake	Columbia	CSLAP
Tully Lake	Cortland	LCI, 1998
Upper Little York Lake	Cortland	LCI, 1998
Somerset Lake	Delaware	CSLAP, 1998
Conesus Lake	Livingston	Bloomfield, 1978
Lake Moraine	Madison	CSLAP, 1995
Tuscarora Lake	Madison	CSLAP, 1998
Irondequoit Bay	Monroe	Bloomfield, 1978
Little Fresh Pond	Nassau	CSLAP
Onondaga Lake	Onondaga	Madsen et al., 1992
Honeoye Lake	Ontario	CSLAP, Gilman 1985
Round Lake	Orange	CSLAP
Oneida Lake	Oswego	Bloomfield, 1978
Canadarago Lake	Otsego	CSLAP
Otsego Lake	Otsego	Bloomfield, 1978
Lake Celeste	Putnam	CSLAP, 1996
Lake Peekskill	Putnam	CSLAP
Cooper's Pond	Rensselaer	RFWI 1989
Nassau Lake	Rensselaer	APIP, 1992
Saratoga Lake	Saratoga	CSLAP
Collins Lake	Schenectady	LCI
Duane Lake	Schenectady	CSLAP
Brant Lake	Warren	Eichler, 1990
Lake George	Warren/Essex/ Washington	APIP, 1988
Cossayuna Lake	Washington	RFWI 1987
Hedges Lake	Washington	CSLAP
Hills Pond/Emerald Lake	Washington	Eichler & Bombard, 1991
Summit Lake	Washington	CSLAP
Java Lake	Wyoming	CSLAP, 1998
Silver Lake	Wyoming	CSLAP

**Figure 3.** New York State counties with Curly-leaf Pondweed (*P. crispus*)



**Table 5.** Locations in New York State with Fanwort (*Cabomba caroliniana*).

<u>LAKE</u>	<u>COUNTY</u>	<u>REFERENCE</u>
Hunt Lake	Saratoga	CSLAP, 1994
Jenny Lake	Saratoga	CSLAP, 1994
Efner Lake	Saratoga	CSLAP, 1997
Belmont Lake	Suffolk	NYSDEC, 1994

### REFERENCES

- Adk. Ecol. 1998. Personal Communication with Steven LaMere of Adirondack Ecologists, Crown Point, NY. February 10, 1999.
- APIP. Darrin (Rensselaer) Fresh Water Institute, Aquatic Plant Identification Program, Darrin Fresh Water Institute, Bolton Landing, NY.
- CSLAP. The New York State Citizens Statewide Lake Assessment Program. Lake Services Section, New York State Department of Environmental Conservation, Albany, NY.
- Eichler, L.W. 1990. An Assessment of Brant Lake, Warren County, New York. Rensselaer Fresh Water Institute, Tech. Rpt. #90-17. Rensselaer Polytechnic Institute, Troy, NY.
- Gilman, B. 1985. An Inventory of the Aquatic Weedbeds of Honeoye Lake with Suggestions for their Management. Dept. of Natural Resources Conservation. Community College of the Finger Lakes, Canandaigua, NY.
- LCI, 1998. Lake Classification and Inventory, New York State Department of Environmental Conservation, Albany, NY.
- Madsen, J.D., L.W. Eichler, C.W. Boylen, J.W. Sutherland and J.A. Bloomfield. 1992. Aquatic Plant Assessment of Onondaga Lake. Interim Report to the Onondaga Lake Management Conference. March 1992.
- Menzie, C.A. 1979. Growth of the Aquatic Plant *Myriophyllum spicatum* in a Littoral Area of the Hudson River Estuary. *Aquatic Botany* 6:365-375.
- Miller, G.L. 1978. An Ecological Inventory of Aquatic Vegetation in the Major Lakes of Cayuga County, New York and Recommendations for their Management. Cayuga County Environmental Management Council, Auburn, NY.
- NYS DEC. Records of the New York State Department of Environmental Conservation. Lake Services Section, Division of Water, Albany, NY.

Reed, C.F. 1977. History and Distribution of Eurasian Watermilfoil in the United States and Canada. *Phytologia* 36:417-436.

RFWI, 1989. Rensselaer Fresh Water Institute, Aquatic Plant Identification Program, 1989 Annual Report. Rensselaer Fresh Water Institute, Tech. Rpt. #90-1. Rensselaer Polytechnic Institute, Troy, NY.

RFWI, 1991. Eichler, L.W. and R.T. Bombard. Rensselaer Fresh Water Institute, Aquatic Plant Identification Program, 1990 Annual Report. Rensselaer Fresh Water Institute, Tech. Rpt. #91-9. Rensselaer Polytechnic Institute, Troy, NY.

Soracco, R.J., 1990. Personal Communication. Rensselaer Fresh Water Institute, Rensselaer Polytechnic Institute, Troy, NY.

Taggett, L. 1989. Aquatic Plant Inventory of the Lake George Region. Rensselaer Fresh Water Institute, Tech. Rpt. #89-2. Rensselaer Polytechnic Institute, Troy, NY.

## **APPENDIX A**

### **AQUATIC PLANT IDENTIFICATION PROGRAM ANNOUNCEMENT**

Darrin Fresh Water Institute (DFWI) has an ongoing program of identifying new sites with Eurasian watermilfoil both in Lake George, and in regional lakes. If you have a plant that you think may be Eurasian watermilfoil, we will gladly identify it for you free of charge.

To have plants identified, send or bring at least three intact plants to the DFWI laboratory facility in Bolton Landing on Lakeshore Drive (Route 9N) or to our RPI campus office (Materials Research Center 201). The plants should be in a plastic bag or container with water. In addition, we would like the following information: name of collector, lake name, site of collection, depth at which the plant was growing, date of collection, the name and phone number of a person to contact with the results.

Plants for identification should be directed to Lawrence Eichler. For more information, contact the DFWI site in Bolton Landing (518) 644-3541 or in Troy at (518) 276-8430.

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