Capital Region PRISM
Partnership for Regional
Invasive Species Management
capitalregionprism.org

Cornell Cooperative Extension Saratoga County
50 West High St.
Ballston Spa, NY 12020

Capital Region Partnership for Regional Invasive Species Management
Aquatic Detection & Monitoring Report

Section 1: Survey Summary

General Information	
Date Survey Conducted: 6/20/2025	**County:** Columbia County
Site Name: Lake Taghkanic State Park	**Permit(s)/Permission(s) Acquired?** Yes OPRHP Scientific Research Permit
Address: Lake Taghkanic Road, Ancram, NY 12502	**Time Spent on Site (Hours)/# of Staff on Site:** 4 Hours/2 CRP staff
Parking Lot Latitude/Longitude: 42˚05'23''N 73˚43'12''W	**Property Owner Name, Title, and Contact:** NYS Office of Parks, Recreation, and Historic Preservation (OPRHP) Region 7 Rebecca Ferry; Environmental Stewardship Biologist Rebecca.Ferry@Parks.ny.gov
Total Waterbody Size: 168 Acres	
Worksite Size: Littoral Zone of entire lake	**Survey Leader Name, Title, and Contact:** Alexa Howansky—AIS Program Manager; ajh363@cornell.edu
Average Depth: 19 feet	**Team Member Name(s) and Title(s):** Alexandra Picard; WISP Assistant Supervisor arp299@cornell.edu (518) 390-5611
Report Author: Alexandra Picard; reviewed/edited by Alexa Howansky	**Data Recorder & iMapInvasives ID:** Alexa Howansky—iMap ID 28804
# of Volunteers: N/A	**Total Volunteer Hours:** N/A

Conservation Goal:

☐ Delineate & assess a conservation value ☒ To prevent and protect a conservation value
☐ Local Eradication ☐ Post-Treatment Monitoring ☐ Containment
☐ Suppression ☐ Exclusion ☐ Restoration

Survey Type:

☒ Detection ☐ Delineation ☐ Follow-up Monitoring ☐ Detection Training
☐ Volunteer Engagement ☐ Crew Assistance Program Project ☒ eDNA

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Launch Description:

Cartop/hand-launch boats can be launched from the West shore of the lake by the beach (inaccessible to trailers). The beach/launch area is open to the public with a day use fee in season and is maintained by NYS Office of Parks, Recreation, and Historic Preservation. Boats must be carried a short distance to the water, so lightweight pack-boats (i.e. Hornbecks) are best. There is an additional launch described by the NYSDEC as an "unimproved trailer launch" located on the East side of the lake off Lake Taghkanic Road, about 0.6 miles West of Route 82. Only electric motors or non-motorized watercraft are allowed on this lake.

Site Description:

Lake Taghkanic's 168 acres extend along 19 miles of shoreline, 650 feet above sea level, with a mean depth of 19 feet. The maximum depth is 40 feet. The lake has areas of cobble substrate but is dominated by sandy-muck substrate and a dense rooted macrophyte community. The Lake Classification of B(T) is suitable for public recreational swimming, fishing, paddling, and supporting trout population.

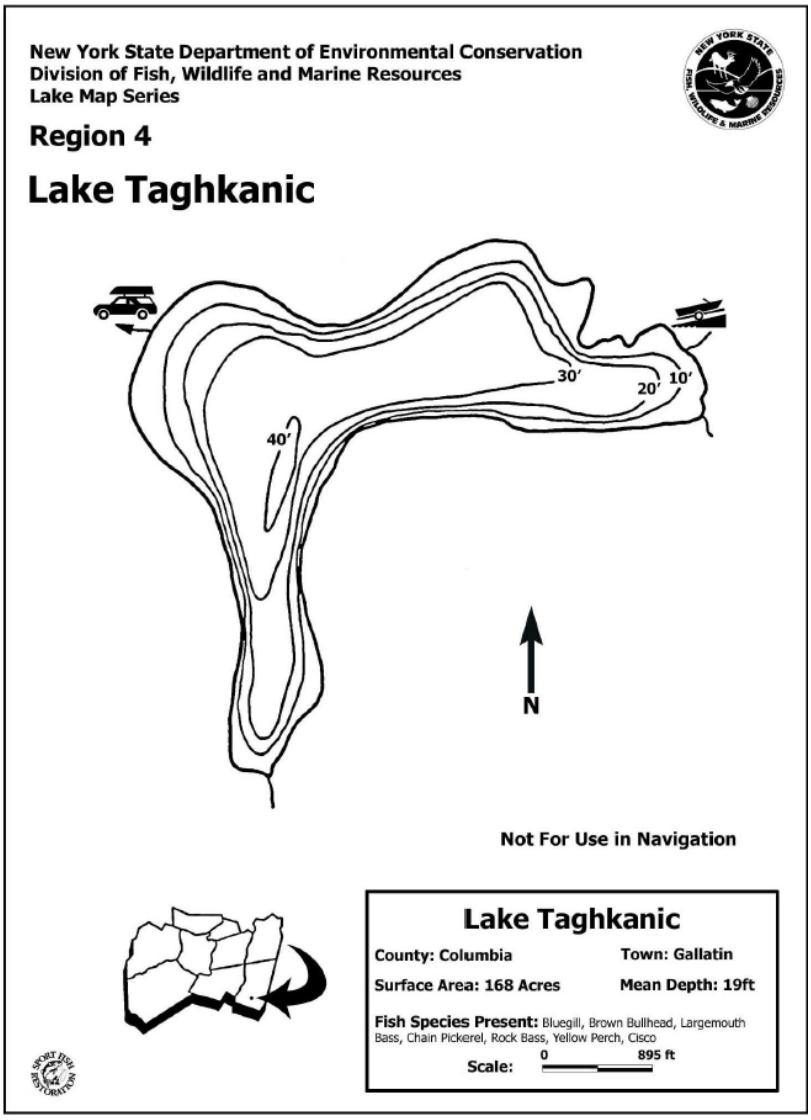

Figure 1. Bathymetric map of Lake Taghkanic

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Survey Techniques:

Survey methods include eDNA sample collection at two locations, top-side visual methods, and rake toss (Cornell method), reported using SAS_Pro in Survey123. Surveyors paddled in a meandering pattern following the littoral zone around the entire perimeter of the lake. The goal was to check on the documented AIS population in the lake such as Water Chestnut (*Trapa natans*) and Curly Leaf Pondweed (*Potamogeton crispus*) and monitor for introduction of tier 1 and 2 species.

Site Significance:

Location within a State Park and low abundance of AIS provide high recreational and economic significance. The vicinity of rare freshwater animals was also used to determine the high ecological significance of Lake Taghkanic. The waterbody is ranked 61st percentile for risk of AIS introduction and 98th percentile for impact of AIS introduction by the NYNHP Aquatic Invasive Species Pond and Lake Vulnerability Prioritization for New York. This means that 61% of all other waterbodies in the state are at either equal or lower risk for introduction of new AIS compared to Lake Taghkanic (i.e. it has a relatively high risk), and that the consequences of such an AIS establishment would have an impact equal to or higher than 98% of all other waterbodies in the state (i.e. very high negative impact). This is due to the aforementioned rare aquatic animal habitat, recreational & economic value, etc.

Section 2: Survey Result Summary

Invasive Species Present:

Common Name & Scientific Name	Tier Rank	Threat Ranking	Growth Form	Phenology/ Life stage	Percent Cover (%)	Distribution/ Abundance	Notes of area inhabited
Curly Leaf Pondweed (*Potamogeton crispus*)	4	Very High	Submerged	Vegetative	< 5%	Trace to dense	Few plants scattered in mostly sparse abundance, with one or two small dense patches.
Not detected but previously reported: Water Chestnut (*Trapa natans*)	4	Very High	Floating	N/A	0%	None	None detected anywhere in 2025 survey area

See next page for native species

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Native Species Present:

Scientific Name	Common Name	Growth Form	Phenology/ Life stage	Percent Cover (%)	Distribution/ Abundance	Notes of area inhabited
Potamogeton robbinsii	Robbin's Pondweed	Submerged	Vegetative	51-75%	Dense	Dominant submerged species.
Najas flexilis	Slender Naiad	Submerged	Vegetative	< 5%	Trace	One plant found in very early vegetative life stage.
Vallisneria americana	Eel Grass	Submerged	Vegetative	< 5%	Sparse	Submerged near beach.
Potamogeton amplifolius	Large Leaf Pondweed	Submerged	Vegetative	5%-25%	Moderate	Frequent populations in beds of *robbinsii.*
Utricularia vulgaris/ macrorhiza	Common Bladderwort	Submerged /free-floating	Vegetative/ Carnivorous	26-50%	Dense	Gray/pale in color. Potentially stressed or coated in epiphytic growth
Nymphaea odorata	White Water Lily	Floating	Flowering /Vegetative	26%-50%	Dense	Found in beds of *Nuphar* and *Brasenia* near shore.
Iris versicolor	Blue Flag Iris	Wetland	Flowering	< 5%	Sparse	Small population on south shoreline.
Nuphar variegata	Spatterdock	Floating	Flowering	51%-75%	Dense	Populations throughout. Large bed at eastern end.
Potamogeton epihydrus	Ribbonleaf Pondweed	Submerged /floating	Vegetative	< 5%	Sparse	Found in mixed bed of *P. robbinsii* and *amplifolius*
Brasenia scherberi	Watershield	Floating	Vegetative	5-25%	Dense	Small dense patches floating with *nymphaea* near shore, pale *Utricularia* below.
Myriophyllum sibiricum	Northern Watermilfoil	Submerged	Vegetative	< 5%	Sparse	Whorl of 5 leaves with fewer than 12 leaflets. All leaves whorled.
Ceratophyllum demersum	Coontail	Submerged	Vegetative	< 5%	Sparse	Found during rake toss only.
Typha spp.	Cattail	Wetland	Vegetative	< 5%	Moderate	Small but dense population on northeast shoreline.
Wolffia spp.	Watermeal	Floating	Vegetative	< 5%	Moderate	Lots of *Wolffia* and *Spirodela* at Doove Kill entrance.
Spirodela polyrhiza	Duckweed	Floating	Vegetative	< 5%	Moderate	Lots of *Wolffia* and *Spirodela* at Doove Kill entrance.
Pontederia cordata	Pickerel-weed	Wetland	Vegetative	<5%	Sparse	Population near Doove Kill entrance.
Ludwigia palustris	Water purslane	Submerged	Vegetative	<5%	Trace	Apparent *Ludwigia spp.*; assumed *L. palustris*.

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Map:

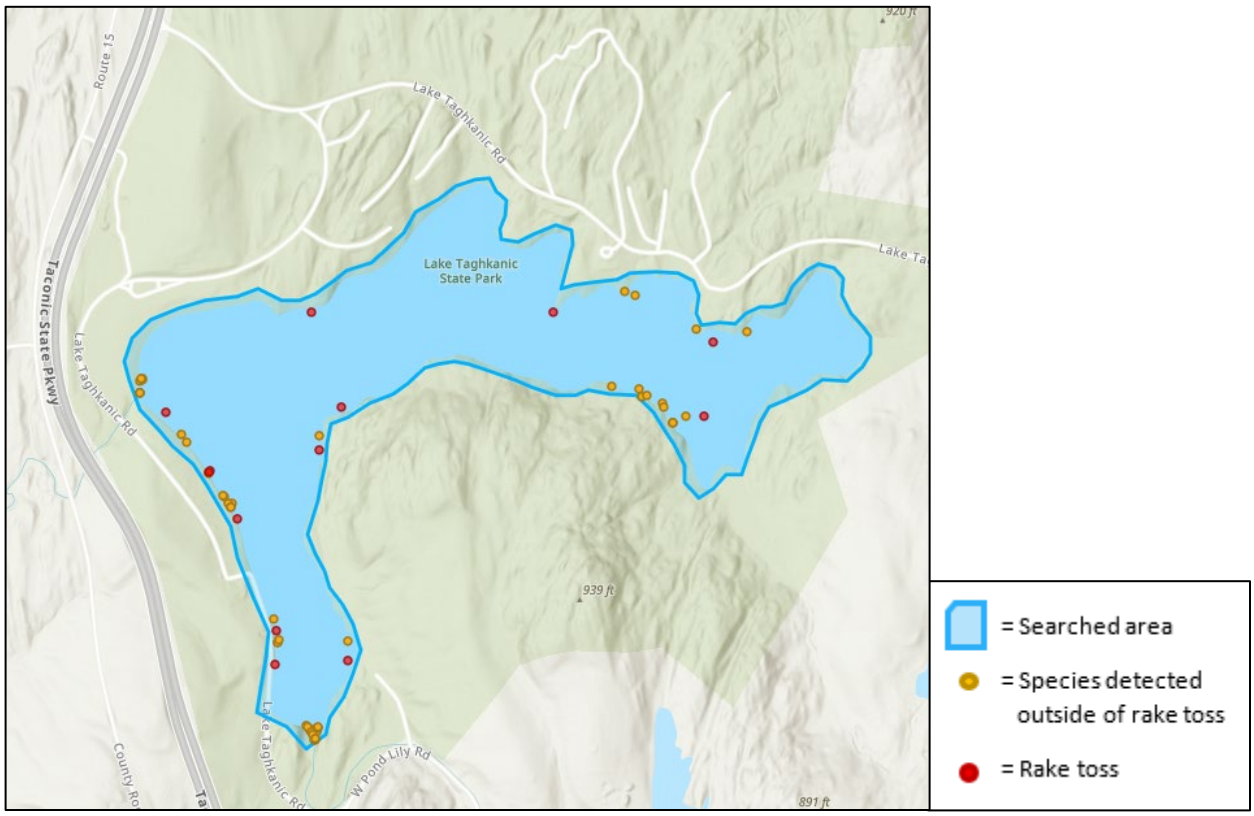

Figure 2. Map of survey area, showing searched area polygon and points for rake tosses & species detected.

Photos:

Figure 3. Robbin's Pondweed (*Potamogeton robbinsii*).

Figure 4. White Waterlily (*Nymphaea odorata*). Flowers present in some other populations but not shown here.

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Figures 5 & 6. Spatterdock (*Nuphar variegata*). In flower (left); dense population on east end of lake (right).

Figure 7. Blue Flag Iris (*Iris versicolor*) in flower.

Figure 8. Common Bladderwort (*Utricularia vulgaris/ macrorhiza*) in pale gray form as described above.

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Figure 9. Ribbonleaf pondweed (*Potamogeton epihydrus*) with submersed and floating leaves.

Figure 10. Curly Leaf Pondweed (*Potamogeton crispus*).

Figure 11. WISP Assistant Supervisor Alexandra Picard prepping the Smith-Root Citizen Science eDNA Pump & filter for sampling.

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Section 3: Summary of Recommendations

Post-Survey Monitoring:

- At this time, it is recommended to monitor the macrophyte community in this waterbody every 2-3 years for changes to existing AIS populations and for early detection of potential new AIS introductions.
- There have previously been detections of Water Chestnut (*Trapa natans*) in this waterbody. It is suggested to survey a few weeks later in the season to determine whether this species is still present.
- Additional post-survey suggestions will be considered based on eDNA sample analysis results.

Response:

- If Water Chestnut does persist in Lake Taghkanic, manual hand-removal is recommended with the goal of local eradication in order to restore and protect habitat for the rare aquatic animal that is known to be present/in the vicinity.
    - Response should occur prior to dropping of seeds, which occurs between late August through October.
    - Care should be taken to achieve minimal disturbance to native plant beds and sediment banks while removing as much Water Chestnut as possible.

Additional Notes:

- If going during park hours, the launch may be busy with people renting boats.
- Boats must be carried a short distance to the water.
- Curly Leaf Pondweed *(Potamogeton crispus)* would likely not be seen if the survey was done later in the season due to phenology. It may be valuable to survey later in the season to see if other species such as slender naiad (*Najas flexilis*) or invasive brittle naiad (*Najas minor*) replace the Curly Leaf Pondweed (*Potamogeton crispus*) after it senesces.

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