# <u>Capital Region PRISM SurveyReport</u> (Big Bend Preserve) Moreau Lake State Park.

- Submit to Capital Region PRISM following the completion of partner, individual, or PRISM-led survey for review.
- Please consult the Capital Region PRISM if there are any questions at (518)-885-8995

#### **Purpose:**

The Invasive Species Survey Report will provide an overview and help guide invasive species treatments, baseline site composition, post-monitoring, and restoration at a specific site over time. A single survey report should not be written for an entire site, but a specific project. A site could have multiple reports. If there are multiple reports within a site, consult with the Capital Region PRISM about potentially preparing a more robust survey report.

<u>iMapInvasives</u> should be used to enter all survey points and polygons in to the state wide data base. Please seek our office out for training if needed with iMapInvasives.

#### **Section 1: Survey Summary**

This section provides an overview of the site, contact information, etc. Once complete, save your PDF and submit the form via email to a member of the Capital Region PRISM team, found at http://www.capitalmohawkprism.org/staff.html. Attach your saved report and any extra documents used for the survey.

To determine site value, we recommend using the iMapInvasives Prioritization Model which can be found on the PRISM website at http://www.capitalmohawkprism.org/ny-invasive-species-prioritization-map.html. This prioritization model will allow you to assess your sites value based on 3 factors. We recommend looking at the comprehensive score or the ecological score to determine if your site is a high priority site as this will help us determine priority of future management. If it is not a high priority site, we still encourage you to complete invasive species surveying.

#### **Section 2: Survey Result Summary**

This section will contain the tables and maps generated from your survey efforts. They will assist the Capital Region PRISM in our efforts to identify emerging species to be able to more effectively manage infestations and the spread of populations. Please fill out the provided table and insert screen shots of iMapInvasives maps.

#### **Section 3: Summary of Recommendations**

This section contains treatment calendars and post-season summaries. Most sites <u>need to be revisited annually</u> to document successes/failures, identify any changes needed, and update future treatment calendars.



### **Section 1: Survey Summary**

Date: June 1st-10th (5 site visits)

Site Name: Moreau Lake State Park

Big Bed Preserve (OSI Property)

Saratoga County

GPS Location of Site/Parking lot: 43.2648, -73.6920

Old Bend Road Gansevoort NY 12831 Second Gate Entrance

Site Size: 890 acres

Property Owner Contact Info:

OPRHP Damon, Andy (PARKS) Andy.Damon@parks.ny.gov

Saratoga Spa State Park

19 Roosevelt Dr. Saratoga Springs, NY 12866 (O): 518-584-2000, ext. 152 (C): 518-646-3652

Survey Leader: Kristopher Williams

Team Members: Lauren Henderson, Lauren Mercier, Nicole Campbell

Email: kbw44@cornell.edu Phone: 518.321.0189

iMapInvasives User ID: 9274

**Site Description**: Provide existing conditions of the site, current land use, landscape elements, etc.

Big Bend Preserve at Moreau Lake State Park is preparing to expand after the Open Space Institute announced that it had purchased 890 adjacent acres of what was known as the Smith Farm. (Big Bend Preserve) The \$1.4 million parcel purchased from Finch Pruyn Timberlands includes forestland, wetland and two miles of Hudson River frontage. The parcel was logged and left as a shelter wood cut to promote a Scrub Oak and Pitch Pine forest.

It will eventually be transferred from the institute to the state park using Environmental Protection Funding. The Smith Farm name stems from a Quaker colony that lived there in the mid-1800s. The newly protected land is also part of the town of Moreau's plans to develop the Hudson River Trail for runners, walkers and bikers connecting Moreau Lake State Park to downtown Glens Falls. It is also part of the Palmertown Range Master Plan, a conservation and recreation road map connecting Fort Ticonderoga to Saratoga Springs. —Post Star January 6<sup>th</sup> 2019

The property is slated to be managed for Karner blue butterflies (*Lycaeides melissa samuelis*) The Karner blue's habitat currently ranges from New Hampshire to Minnesota, their populations are limited to specialized habitats where wild blue lupine plants (*Lupinus perennis*), are found.

The property will be managed in a partnership with the Albany Pine Bush and the Office of Parks Recreation and Historic Preservation. The Capital Region PRISM aided in the initial base line terrestrial invasive survey for the parcel to determine initial and future management.

<u>Survey Techniques:</u> Provide a clear and concise description of the work to be conducted, target species, and any survey methods used.

The parcel was surveyed with two teams, one from the Office of Parks Recreation and Historic Preservation and the other from the Capital Region PRISM. The teams ranged in size between 4-6 people. Highly probable areas along old skid roads, logging access roads, landing zones, fence perimeters, and riparian zones were surveyed using team transects spaced approximately 50 to 100 feet apart along those points of concerns.

The property has been divided into sub parcels for different management objectives. The perimeter of those sub plots were surveyed. When appropriate, meandering transects were used to survey the segments. Note the sub parcel map below.





Did you identify this site through the iMapInvasives Prioritization Model? If yes- Did it score high in either ecological or comprehensive value?

Yes - High comprehensive & ecologic value

- The searched areas are ranked high on the prioritization model comprehensive score attribute. (Fairly dense shaded coloring on the heat map.)
- <a href="https://www.arcgis.com/home/webmap/viewer.html?webmap=57d30ff9bff7426c8950d90b0ba">https://www.arcgis.com/home/webmap/viewer.html?webmap=57d30ff9bff7426c8950d90b0ba</a> 43bba&extent=-81.0352,39.2503,-70.2686,45.8067

Does this site contain previously treated infestations?

No

## **Section 2: Survey Result Summary**

Due to the large track of land surveyed please visit iMapInvasives for a full list of species surveyed. The list below contains a list of species found in the survey.

Common Name	Scientific Name	Location (GPS)	Growth Type	Phenology	Distribution/ Abundance
Burning Bush,	Euonymus alatus	43.27719, -73.685	Shrub	Leaf Unfolding	See iMapInvasives
Japanese Barberry	Berberis thunbergii	43.277221,-73.6851	Shrub	Leaf Unfolding	
Honeysuckle	Lonicera spp	43.2683241 73.7072464	Shrub	Flowering	
Oriental Bittersweet	Celastrus orbiculatus	43.27808 -73.7024	Vine	Flowering	
Boarder Privet	Ligustrum obtusifolium	43.27957 -73.687168	Shrub	Flowering	
Black Locust	Robinia pseudoacacia	43.267545973,-7092856	Tree	Leaf Unfolding	
Autumn Olive	Elaeagnus umbellata	43.2683035,-73.707289	Tree	Leaf Unfolding	
Birdfoot Deervetch	Lotus corniculatus	43.2621972,-73.7085404	Ground Cover	Flower	
Spotted Knapweed	Centaurea stoebe spp. micranthos	43.2623477,-73.708546	Ground Cover	Bolting	
Mugwort	Artemisia vulgaris var. vulgaris	43.2725061,-73.6933896	Herbaceous	Leaf Unfolding	
Tufted Vetch	Vicia cracca ssp. cracca	43.2721861, -73.6930321	Herbaceous	Leaf Unfolding	
Great Mullein	Verbascum thapsus	43.2924663, -73.63957	Herbaceous	Bolting	
Colt's Foot	Tussilago farfara	43.2645068,-73.7117977	Ground Cover	leaf	
Bull Thistle	Cirsium vulgare	43.2693451,-73.6979448	Herbaceous	Bolting	
Marsh Thistle	Cirsium palustre	43.26974, -73.69862	Herbaceous	Bolting	
Canada Thistle	Cirsium arvense	43.26526 -73.70153	Herbaceous	Bolting	

#### **Growth Type:**

(T)Tree, Shrub, Vine, Ground Cover, Herbaceous, Riparian, Pest, Animal

(A)Submerged, Floating, Emergent, Riparian, Pest, Animal

#### Phenology:

Flowering, Leaf unfolding, fruit ripening, leaf color change, dormant, swarming,

spawning, emergence (insects), migrating, seed dispersal

#### Distribution/Abundance:

Sparse, Dense Patches, Dominant, Single Clump, Single Plant



## **Insert Site Maps**

<u>Map:</u> Develop a map of the survey area that has any iMapInvasives points and searched polygons included to clearly define infestation extent. Multiple maps may be added for multiple species or locations.

http://www.imapinvasives.org/

Survey Points and Searched Areas





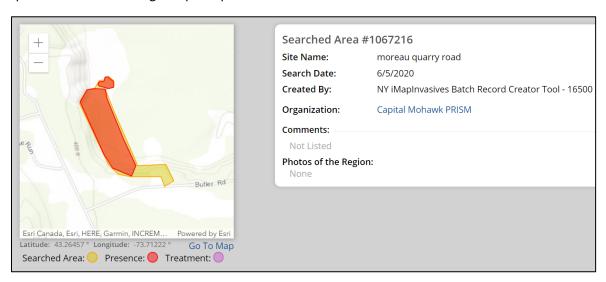
**Section 3: Summary of Recommendations** 

This page provides recommendations of any treatment methods, monitoring methods, and restoration efforts based on the survey.

<u>Treatment:</u> Describe briefly any recommendations for future treatment methods, why they are recommended, and any alternatives to consider. Please use abundance and site-specific factors in your treatment recommendation. <u>Optional</u>: Attach or reference BMP guidance document

There are several species of concern that should be considered for management.

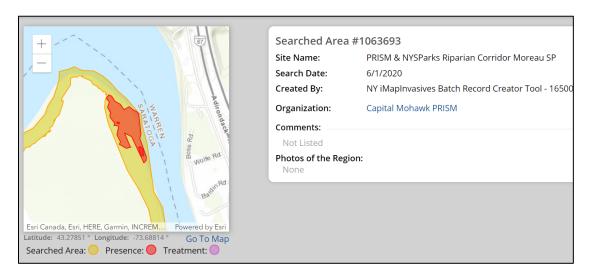
- 1. Black Locust, Robinia pseudoacacia; Approximately 19 acres of sparse to dense populations.
- 2a. Japanese Barberry, Berberis thunbergii; Approximately 9 acres of dense/monoculture population.
- b. Burning Bush, Euonymus alatus; less than an acre.
- c. Border Privet, Ligustrum obtusifolium; less than an acre.
- 3. Japanese Barberry, Berberis thunbergii Site 2; Approximately 10 acres of sparse to dense population.
- 4. Honeysuckle, Lonicera spp Unknown; wide spread
- 5. Oriental Bittersweet, Celastrus orbiculatus
- 1. Black Locust Grove and Seedlings. There are a dozen old growth Black Locust trees producing seeds located near the sand quarry entrance with seedlings along the dirt road. The Locust grove may not be on OSI/Park property. iMapInvasives Searched Area Polygon #1067216. Approximately 19 acres of sparse to dense seedling and pole species.



Black Locust, Robinia pseudoacacia; New York State Invasive Species Threat Ranking 81.11

• <a href="http://nyis.info/wp-content/uploads/2018/01/97fa0">http://nyis.info/wp-content/uploads/2018/01/97fa0</a> Robinia.pseudoacacia.NYS .pdf

2. Riparian and field habitat infestation of Japanese Barberry Berberis thunbergii, Burning Bush, Euonymus alatus, and Border Privet, Ligustrum obtusifolium. The entire area with all three species covers approximately 9 acres of habitat. The Japanese Barberry is a dense monoculture covering the majority of the iMapinvasives search area #1067216. Burning Bush, Euonymus alatus is approximately 0.7 acres in size. The Border Privet, Ligustrum obtusifolium is 0.3 acres. The Burning Bush and Border Privet and contained within the Japanese Barberry infestation.



Japanese Barberry Berberis thunbergii; New York State Invasive Species Threat Ranking Very High 91.

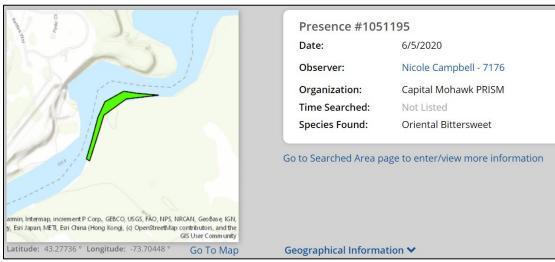
• http://nyis.info/wp-content/uploads/2018/01/30d9c Berberis.thunbergii.NYS .pdf

Winged Burning Bush, Euonymus alatus; New York State Invasive Species Threat Ranking Very High 81.

http://nyis.info/wp-content/uploads/2018/01/c77f1 Euonymus.alatus.NYS .pdf

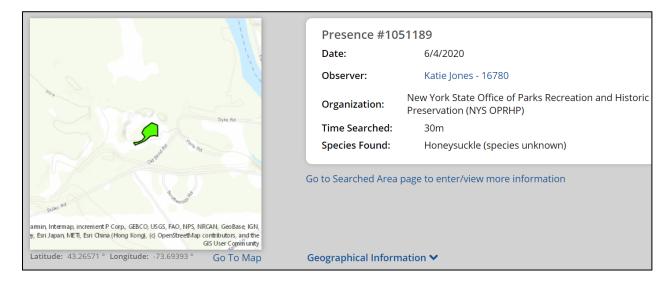
Border Privet, Ligustrum obtusifolium; New York State Invasive Species Threat Ranking High 77.

- http://nyis.info/wp-content/uploads/2018/01/10d08 Ligustrum.obtusifolium.NYS .pdf
- 3. Riparian and field habitat infestation of Japanese Barberry site 2. The infestation is sparse to dense covering approximately 10 acres. iMapInvasives Searched Area Polygon #1051195.



4. Honeysuckle, Lonicera spp Unknown; Approximately 3.3 Acres.

#### iMapInvasives Searched Area Polygon #1051189



Other Species of Concern spread through-out the parcel.

Honeysuckle – Lonicera ssp.

New York State Invasive Species Threat Ranking Very High 85.

- http://nyis.info/wp-content/uploads/2018/01/e4b40 Lonicera.maackii.NYS .pdf
- <a href="http://nyis.info/wpcontent/uploads/2018/01/595a0">http://nyis.info/wpcontent/uploads/2018/01/595a0</a> Lonicera.morrowii.tatarica.xbella.NYS .pdf

Oriental Bittersweet, elastrus orbiculatus;

New York State Invasive Species Threat Ranking Very High Threat Ranking 86.67

http://nyis.info/wp-content/uploads/2018/01/9b927\_Celastrus.orbiculatus.NYS\_.pdf

<u>Post-Survey Monitoring:</u> Briefly explain the monitoring procedure, when it will occur, and who will complete it. Consider the phenology of species when suggesting time-lines. If a separate management or monitoring plan was developed or to be completed, attach or describe here.

• To be determined as recommended by the Office of Parks Recreation and Historic Preservation.

Will post-treatment management be handled by another person/entity? If yes- please provide the contact information:

 OPRHP Damon, Andy (PARKS) <u>Andy.Damon@parks.ny.gov</u> Saratoga Spa State Park
 Roosevelt Dr. Saratoga Springs, NY 12866
 (O): 518-584-2000, ext. 152 (C): 518-646-3652

Will an Invasive Species Management Plan be created?

Contact OPRHP



#### **Additional Comments:**

The Capital Region PRISM is present to aid in future surveys, management, and control of invasive species at the Big Bed Preserve. Please feel free to contact the PRISM with questions, concerns or more details.

Thank You,

Kristopher Williams
Invasive Species Coordinator
Capital Region PRISM Partnership for Regional Invasive Species Management

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