St. Lawrence Eastern Lake Ontario Partnership for Regional Invasive Species Management

# Eldrett Bird Conservation Area

SLELO-PRISM Early Detection Surveillance

July 18-19, 2013

**Figure 1:** Panoramic view of Eldrett Bird Conservation Area

Report prepared by Logan West, Mike McHale and Rob Williams, 8/8/2013

## Introduction and Background

The Eldrett sisters, Mary and Helen, are the owners of a 184-acre wildlife sanctuary that they have named *Downybrook Bird Conservation Area*. The property is located just east of Lake Ontario in Jefferson County in the small town of Brownville, NY (Figures 2, 3).

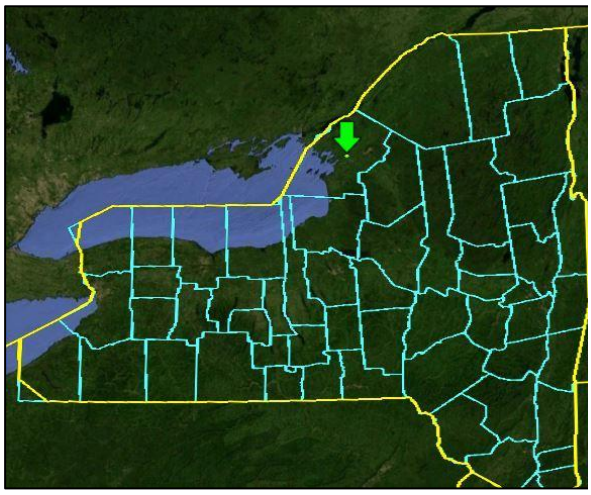

**Figure 2:** Eldrett Bird Conservation Area location (green arrow)

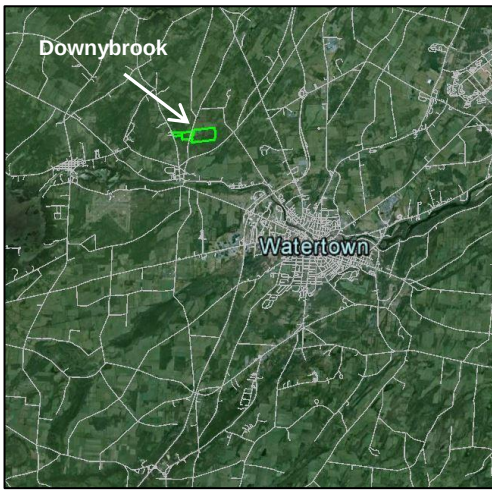


**Figure 3:** Eldrett Bird Conservation Area northwest of Watertown, NY

Mary and Helen moved to the property in 1971 and over the years purchased neighboring lands, consisting of abandoned farmland including Alvar lands. With lots of patience, hard work, and with some help from natural succession, the Downybrook property is now a natural area with a variety of habitats that accommodate an abundance of wildlife. These habitats include grassy fields, brush/shrub areas, second-growth forests, alvar, and ponds with the wetland areas that surround them.

Open to the public, the property is now under an easement granted to the Ontario Bays Initiative (OBI) with the intent that the land be preserved as a sanctuary for posterity. In 2012

representatives from OBI requested financial assistance from the SLELO PRISM to conduct an invasive species assessment of the area. The PRISM Steering Committee felt that rather than providing financial assistance, the PRISM could devote other resources to complete the assessment.

## Survey Methods and Objectives

On July 16, 2013, SLELO-PRISM technicians met on site with Julie Covey, a consultant working for with the Ontario Bay Initiative. Areas of concern were identified during an orientation tour of the property, and Julie provided plenty of background information and first-hand knowledge of the area. She informed us that a single plant of swallow-wort (*Cynanchum spp.*) had been found and removed from the property last season. Since swallow-wort is a SLELO-PRISM 'Target Management Species' with the potential to take over ecosystems, the crew considered early detection of swallow-wort a top priority.

In preparation for establishing and conducting Early Detection and Rapid Response surveillance targeting invasive species, a map of Downybrook with eleven (11) High Probability Areas (HPA's) was created (Figure 4). HPA's are areas where human activities or site conditions increase the probability that invasive species will be introduced and become established. The areas of concern for swallow-wort focused on the area near where the single plant was found last year at HPA-1 (highlighted red Figure 4), and also in open areas exposed to wind-borne seeds, again highlighted in red in Figure 4.

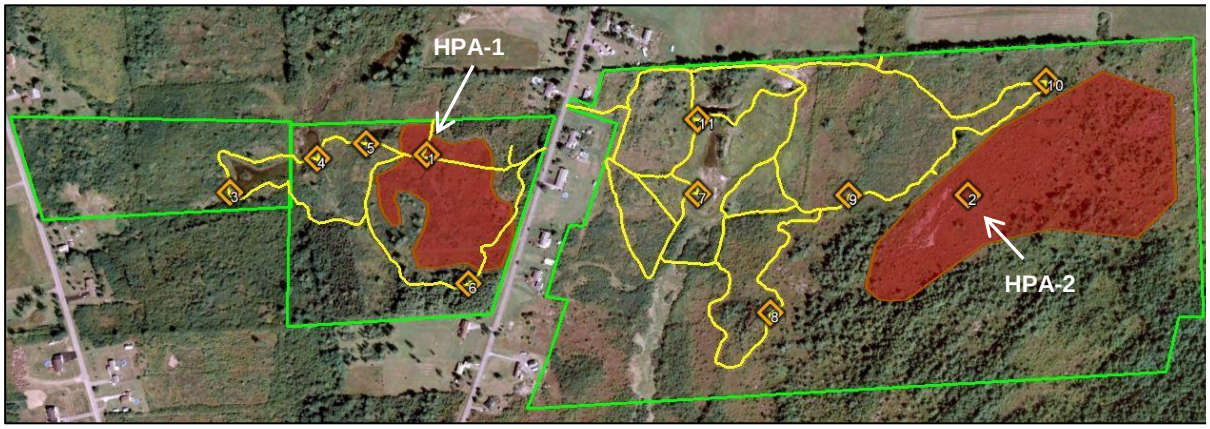


**Figure 4:** Land boundaries (green), Trails (yellow), HPAs (Orange diamonds), and areas of concern for swallow-wort (red shading)

Three types of surveys were utilized for the assessment of Eldrett Bird Conservation area. A trail side survey[1] was conducted by hiking each trail and examining the plants along the way.

[1] A trail side survey consists of conducting visual observations while walking the trail.

Of the eleven HPA's that were identified (Table 1), five had both terrestrial and aquatic HPA components. Lastly, HPA's 1 & 2 are areas where swallow-wort was found (HPA 1) in the past and where it has preferential characteristics for populations to take hold (HPA 2) (Figure 4). At these two sites, off-trail random transects[2] and pace-transects[3] were conducted to ensure there were no swallow-wort populations in those areas. The crew utilized a handheld Garmin GPSMAP* 62 to track the travel route and record waypoints (pink line, Figure 5).

**Table 1:** Terrestrial HPA positioning and findings

| HPA | Latitude | Longitude | HPA Type |
|---|---|---|---|
| 1 | 44.02061118 | -75.97963364 | T |
| 2 | 44.02033414 | -75.96860963 | T |
| 3 | 44.01994014 | -75.98359461 | T & A |
| 4 | 44.02048989 | -75.98186353 | T & A |
| 5 | 44.020737 | -75.98087781 | T & A |
| 6 | 44.01874717 | -75.97868146 | T |
| 7 | 44.02019474 | -75.9740833 | T & A |
| 8 | 44.01850066 | -75.97251306 | T |
| 9 | 44.02026403 | -75.97102205 | T |
| 10 | 44.02204327 | -75.96711935 | T |
| 11 | 44.02128455 | -75.97414701 | T & A |

*Key to abbreviations used in table: **T:** Terrestrial HPA, **A:** Aquatic HPA

SLELO-PRISM technicians were assisted by four interns from the Leaders in Environmental Action for the Future program (LEAF). The LEAF intern program is designed for urban high school students to supplement their knowledge of ecology and conservation issues, develop a real world understanding of our environment and to provide them with a better understanding of possible environmental careers. Three teams were utilized to survey the sites, each team comprised of a SLELO PRISM Conservation Practitioner and a LEAF intern.

[2] Random transects consist of walking through areas that can be feasibly accessed by foot.
[3] Pace transects consist of dividing an area into 50 foot perpendicular and parallel laneways using a personal, consistent pace.

## Observations

Upon completing the HPA and trail side assessment, there were **no 'Prevention "watch-list" Species' were observed** by the crew and interns in the bird conservation area. Phragmites, which is a 'Target Management Species,' was spotted in one area by SLELO-PRISM technicians (Figure 5). The specific location was recorded with a GPS and is presented in (Table 2). The site is located between aquatic HPAs seven and eleven between the two ponds (Figure 6). The population is divided by the trail. It is a dense population with native plants growing amongst the outer margin of the population. It is estimated to roughly cover a 20 by 30 foot area, (600 square feet).

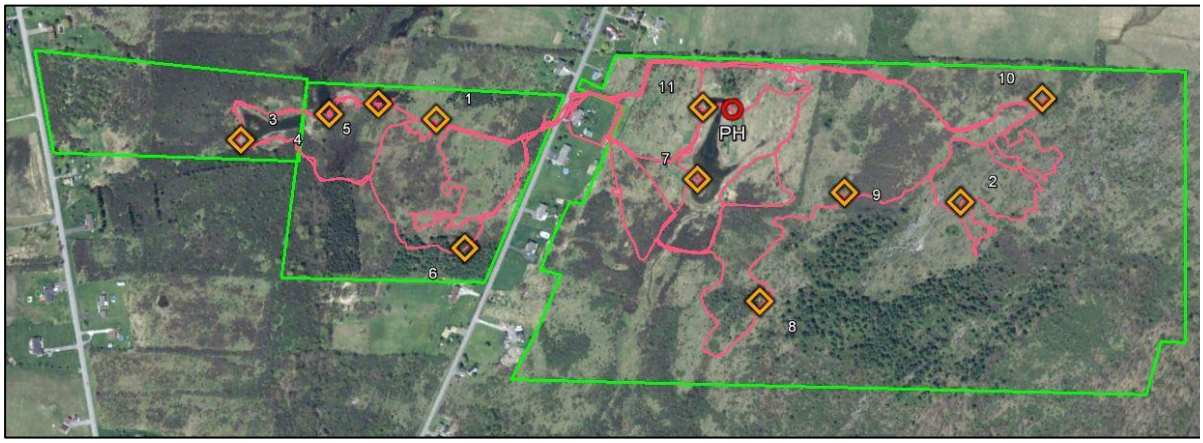


**Figure 5:** Walking route for survey (pink line), invasive phragmites point PH (red circle)

**Table 2:** Point data for Phragmites

| Point Name | Latitude | Longitude |
|---|---|---|
| PH | 44.02132 | 75.97354 |


**Figure 6:** Close up of Phragmites point- PH (red circle)

Other species of concern that were found on the property are presented in (Table 3).

**Table 3**: General species of concern that were observed on the Eldrett Downybrook site.

| | | |
|---|---|---|
| Spotted Knapweed | *Centaurea maculosa* | Prevalent – found in numerous locations |
| Common Buckthorn | *Rhamnus cathartica* | Prevalent – found in numerous locations |
| Japanese Honeysuckle | *Lonicera japonica* | Prevalent – found in numerous locations |
| Wild Parsnip | *Pastinaca sativa* | Found near HPA-3 only |

**Aquatic Observations**:

An additional aquatic survey of five ponds located near HPA's 3,4,5 and 11 was also completed. This was done to identify any prevention or target management species. Data detailing aquatic vegetation was collected via visual observation from the ponds edge and also by wading into these ponds. The rake toss method was not utilized because all of the ponds surveyed were shallow enough to enter by foot.

Due to the proximity of these aquatic HPA's to the terrestrial HPA's, new GPS points were not recorded. The GPS locations for the aquatic (pond) HPA's were modified by placing an (A) after each terrestrial HPA, (Figure 7).

Of the five ponds surveyed, all were nearly identical in the resident species of aquatic plants observed. One noteworthy observation was the presence of Red Ludwigia (*Ludwigia palustris*), (Figure 8 and 9). This was the first observation of this species in all of the priority conservation areas recently surveyed within the SLELO region. Some sources suggest that this plant is native to North America and often cultivated as an aquarium plant[4]. Aquatic species that were observed in the aquatic HPA's are presented in (Table 4).

[4] Taken from: http://en.wikipedia.org/wiki/Ludwigia_palustris and http://plants.ifas.ufl.edu/node/248


**Figure 7:** Map showing the locations of the ponds surveyed (aquatic HPA's).

**Table 4:** Observations of aquatic plants from the ponds located on the Eldrett Conservation Area.

| HPA | # Species | # Invasive | Species Present | Notes |
|---|---|---|---|---|
| **HPA – 5 (A)** | 5 | | Slender Pondweed (*Potemogeton spp.*) | Native to northeast |
| Pond | | | Broad Leaf Pondweed (*Potemogeton natans*) | Native to northeast |
| | | | Milfoil (*Myriophyllum alterniflorum*) | Native to northeast |
| | | | Pithophora Floating Algae (*Pithophora spp.*) | Native to northeast |
| | | | Chara (*Chara spp.*) | Native to northeast |
| | | | | |
| **HPA – 4 (A)** | 5 | | Broad Leaf Pondweed (*Potemogeton natans*) | |
| Pond | | | Large Leaf Pondweed (*Potemogeton amplifolius*) | Native to northeast |
| | | | Chara (*Chara spp.*) | |
| | | | Pithophora Floating Algae (*Pithophora spp.*) | |
| | | | Red Ludwigia (*Ludwigia palustris*) | First observation in priority conservation areas. Red in color – submersed. Native |
| | | | | |
| **HPA – 3 (A)** | 5 | | Slender Pondweed (*Potemogeton spp.*) | |
| Pond | | | Broad Leaf Pondweed (*Potemogeton natans*) | |
| | | | Milfoil (*Myriophyllum alterniflorum*) | |
| | | | Pithophora Floating Algae (*Pithophora spp.*) | |
| | | | Chara (*Chara spp.*) | |
| | | | | |
| **HPA – 11 (A)** | 3 | | Red Ludwigia (*Ludwigia palustris*) | Found also in HPA 4(A) |
| North Pond | | | Chara (*Chara spp.*) | |
| | | | Pithophora Floating Algae (*Pithophora spp.*) | |
| | | | | |
| **HPA – 11 (A)** | | | Broad Leaf Pondweed (*Potemogeton natans*) | |
| South Pond | | | Pithophora Floating Algae (*Pithophora spp.*) | |
| | | | Chara (*Chara spp.*) | |
| | | | | |

Figure 8: (*Ludwigia palustris*) Photo by Mike McHale, 2013

Figure 9: (*Ludwigia palustris*) Photo by Mike McHale, 2013