

Silver Lake Glossy Buckthorn Field Report

Addendum September 2013

Submitted by George Spak and Sandra Bonanno



Introduction/Background – In 2012, George Spak and Sandra Bonanno treated glossy buckthorn at Silver Lake Fen, Towns of Oswego and Hannibal, Oswego County. Please refer to Silver Lake Glossy Buckthorn Report, 2012, on file with SLELO. At that time, every attempt was made to locate and remove every stem of glossy buckthorn, large and small, by walking transects throughout the habitat and canoeing along the shoreline. The Field Report included pre- and immediate post-treatment assessment of conditions, with a promise of followup assessment one year later. This addendum fulfills that promise.

The adjacent map shows Silver Lake with the treatment area outlined, as reported in the 2012 Field Report. A total of 19.52 acres were treated. Thanks go to Greg Chapman of The Nature Conservancy, who prepared the map using Arc GIS. The map is based on data gathered by Sandra Bonanno with a Garmin GPSmap 76CSx unit, which has an accuracy of +/- about 20 feet.

Silver Lake Glossy Buckthorn Treatments - October 2012



The Photomonitoring locations were revisited by Sandra Bonanno, assisted by Ryan Thompson, on September 19, 2013. Photos were taken to repeat the pre-treatment view, and data were recorded. The photos (see following pages) do not reveal the changes very well. The data are more revealing (see Table 1).

Table 1. Photo Monitoring Data

Point	# GB stems => 1m		# GB stems < 1m	
	pre	1 yr post	pre	1 yr post
Gb01	1	0	5	8
Gb02	4	0	7	29
Gb03	3	0	3	4
Gb04	5	1	20	15

Points are marked with four PVC monitoring stakes along the W side of the lake: three in shoreline hummocks, one at the woodland edge. Documented each with a photo and GPS point, which facilitated relocation. Took data in a circular plot with 1 m radius. Data: # GB > 1 m tall, # GB < 1 m tall.

As noted in the data, almost all stems > 1 meter were treated. In only one case (GB04), was a tall stem found a year later. It was probably missed. Some evidence of missed stems was also seen on the south side of the lake. This is inevitable with this kind of effort in difficult habitat.

The situation with stems < 1 meter tall is more complex. Some of them were seedlings. We made every effort to pull seedlings during treatment, so most of the seedlings are new. A flush of seedlings is a known effect of removal of overstory, as resources are released. Seedlings typically suffer considerable mortality. Some others were resprouts of treated stems, and some showed the frilling characteristic of glyphosate damage. There was also some frilling on red maple saplings, as has also been seen in previous projects using this method with glyphosate.

The occurrence of more abundant small stems after treatment than before suggests that a followup project in a few years would be wise. When we did this work in 2004-05, we also observed a flush of seedlings the following year. It is telling to note that for this project we found no buckthorn at all over much of the habitat on the W side of the lake that had supported heavy stands before treatment in 2004-05. We will remonitor these photopoints in two years to assess the fate of seedlings and surviving young glossy buckthorn stems. At that time a decision can be made as to the wisdom of repeating this effort.

SILVER LAKE Glossy Buckthorn Removal – Photos taken 2012 and 2013 by Sandra Bonanno

#1 09/28/12 Pretreatment

Shoreline Hummock, W shore, near S end. GB stems >1m = 1; <1m = 5.



#1 09/19/13 1Year Post-treatment Same view one year after treatment. GB stems >1m = 0; <1m = 8.



SILVER LAKE Glossy Buckthorn Removal – Photos taken 2012 by Sandra Bonanno

#2 09/28/12 Pretreatment

Edge of woods. W side of lake, W of #2. GB stems > 1m = 4; <1m = 7.



#2 09/19/13 1Year Post-treatment Same view a year after treatment. GB stems >1m = 0; <1m = 29.



SILVER LAKE Glossy Buckthorn Removal – Photos taken 2012 by Sandra Bonanno

#3 09/28/12 Pretreatment

Shoreline hummock W shore, N of #1. GB stems >1m = 3; <1m = 3...



#3 09/19/13 Post-treatment

Same view one year after treatment. GB stems >1m = 0; <1m = 4.



SILVER LAKE Glossy Buckthorn Removal – Photos taken 2012 by Sandra Bonanno

#4 09/28/12 Pretreatment

Shoreline hummock, W shore, N of #3. GB stems >1m = 5; <1m = 20.



#4 09/19/13 Post-treatment

Same view one year after treatment. GB stems >1m = 1; <1m = 15.

