

Chaumont Bay

SLELO-PRISM Water Chestnut & Hydrilla Surveillance 2012

July 3, 5, 6 & 10 (Water Chestnut); August 9 & 13 (Hydrilla), 2012



Figure 1: Panoramic view of Chaumont Bay looking west, taken from near Sawmill Bay, July 5, 2012. Photo by Mike McHale.

Report drafted by Greg Chapman and Mike McHale, 7/11/12. Updated 8/22/12.

Introduction and Background

Chaumont Bay is a large bay on the northeastern shore of Lake Ontario, west of the village of Chaumont and east of Point Peninsula in western Jefferson County, New York. The large, sheltered bay is a popular fishing, sailing and vacationing destination, and much of the shoreline is developed with camps, cottages and several marinas. Within the larger Chaumont Bay area are several smaller named bays, including Three Mile Bay, Sawmill Bay, Long Bay and Guffin Bay.

Public access is available from several locations along the bay's perimeter. The New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) operates Long Point State Park on Long Point Peninsula, which provides a bay-side concrete boat ramp as well as fishing and shoreline use access. NYSOPRHP also owns and maintains a concrete boat launch at a site off Route 12-E north of the village of Chaumont that provides access near Sawmill Bay.

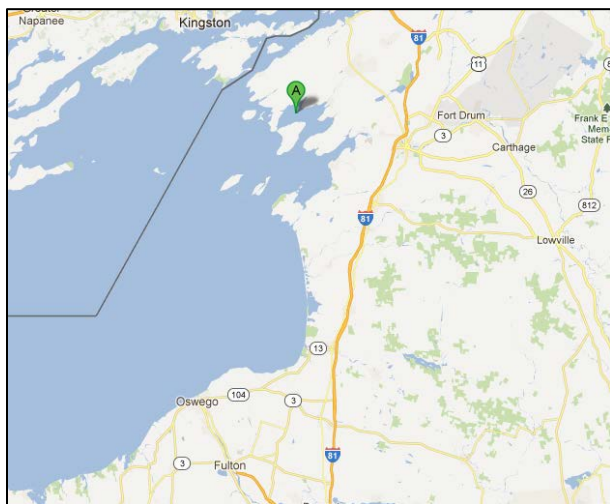


Figure 2: Location of Chaumont Bay within the eastern Lake Ontario region.

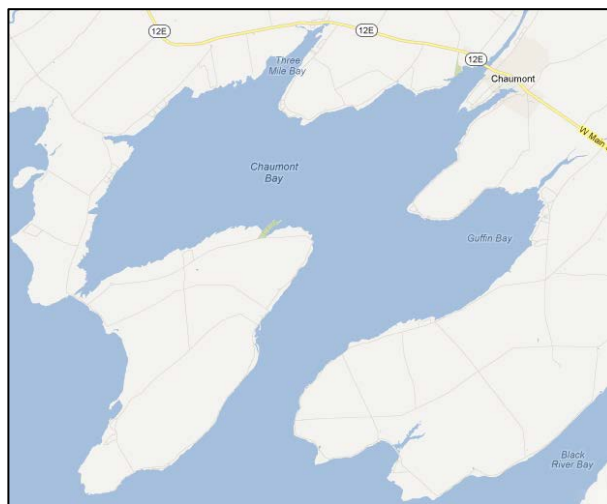


Figure 3: Map of Chaumont Bay and surrounding area.

The NYS Department of Environmental Conservation (NYSDEC) operates two boat launches on or near Chaumont Bay. A concrete boat launch providing access to Lake Ontario is located at the former Golden's Marina site off County Route 57 as it approaches Point Peninsula; a second concrete ramp provides access to Three Mile Bay and is located in the hamlet of Three Mile Bay along Route 12-E.

Targeted Locations

Due to the large area encompassed by Chaumont Bay, five Highly Probably Areas were identified¹ to focus survey efforts. These included not only boat launch locations, but quiet eastern areas of individual bays within Chaumont Bay where species arriving from the larger Lake Ontario area could readily establish.



Figure 4: Map showing the locations of the five Chaumont Bay HPAs.

HPA-1: Long Point State Park. Survey area included the perimeter of the small bay adjacent to the concrete boat ramp.

HPA-2: The NYSDEC's former Golden's Marina Boat Launch. Visual survey conducted from shore of immediate area surrounding boat launch and nearby rock berm adjacent to County Route 57.

HPA-3: Three Mile Bay. Survey area included perimeter of the bay and area surrounding the NYSDEC Boat Launch.

HPA-4: Chaumont/Sawmill Bay. Survey area included perimeter of both bays and area near the NYSOPRHP Boat Launch.

HPA-5: Guffin Bay. Survey area focused on quiet channel at the eastern end of the bay.

Survey Methods and Objectives

A survey targeting Water Chestnut (*Trapa natans*) and other aquatic and riparian invasive species² was undertaken by SLELO-PRISM seasonal employees Mike McHale and Greg Chapman on July 3, 5, & 6, 2012.

A subsequent survey targeting Hydrilla (*Hydrilla verticillata*) was undertaken by SLELO-PRISM seasonal employees Mike McHale and Greg Chapman on August 9 & 13, 2012.

Additional data detailing submerged aquatic vegetation was collected via rake toss near boat launch locations and within quiet bays. For each rake toss location, a weighted rake was thrown twice, once from each side of the canoe. Submerged aquatic vegetation collected on the end of

¹ See Appendix 1 for HPA assignment protocols.

² For a list of targeted species, see the SLELO-PRISM 2012–2016 Strategic Plan, pp. 36 – 37.

the rake was then analyzed from each toss, and the total number of species present was recorded, as well as the number and identification of all invasive species present.

Invasive species occurrences were recorded using the iMapInvasives Observation Field Form and reported to the iMapInvasives database. A Garmin hand-held GPS unit was used to record invasive species occurrence coordinates, locations of rake tosses as well as tracking the route taken during the survey.

Observations

During the course of the survey, early detection of a Water Chestnut infestation was accomplished within HPA-5, specifically within Guffin Bay's inlet channel. Although Water Chestnut plants were observed within an approximately 20-acre area, occurrences were dispersed and mainly consisted of clusters containing less than 10 plants, with an estimated total of less than 200 plants (See Figure 7 on the following page for a density map of the affected area). A rapid response action was coordinated to remove these plants; see the Rapid Response Actions section below.



Figure 5: Water Chestnut observed growing near the outlet of a stream feeding into eastern Guffin Bay, July 5, 2012. This occurrence is the largest patch seen growing at that location. Photo by Mike McHale.

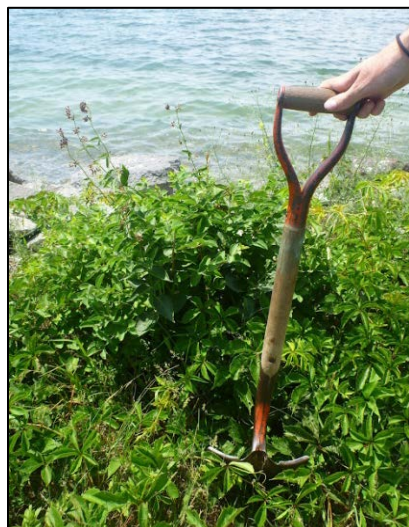


Figure 6: A small patch of Swallow-wort removed from a rock berm near HPA-2 on July 3, 2012. Photo by Greg Chapman.

Swallow-wort (*Cynanchum* spp.) was additionally detected at HPA-2 (the former Golden's Marina NYSDEC Boat Launch) and along the nearby rock berm on County Route 57. The four small occurrences of Swallow-wort along the rock berm were removed upon detection by hand-digging; a somewhat larger population growing within the boat launch property was mapped and recorded. This information will be shared with the NYSDEC, who are planning to improve this property later this year.

Eurasian Water-Milfoil (*Myriophyllum spicatum*) was commonly seen growing in shallow places throughout the area surveyed, and was commonly observed during rake toss analysis. Zebra/Quagga Mussels (*Dreissena* spp.) were also occasionally encountered attached to submerged vegetation brought to the surface during the course of some rake tosses, and their shells were frequently seen along the shoreline and on the lake's bottom.

No Hydrilla occurrences were detected during the second rake toss survey conducted on August 9 & 13, 2012.

Rapid Response Actions

A Rapid Response Event targeting the emerging Water Chestnut population in eastern Guffin Bay was planned and executed on July 10, 2012. One-time parking and launch permission was

obtained from the owner of Guffin Bay Resort & Marina on nearby Point Salubrious (along County Route 125); this significantly cut down on travel time that would have been necessary if the crew had launched from the NYSOPRHP Boat Launch near the village of Chaumont (the nearest public access).

To ensure adequate coverage of the widely-dispersed population and quick response time, a total of seven individuals in four canoes deployed to harvest Water Chestnut via hand pulling. Joining SLELO Field Crew members Mike McHale and Greg Chapman were four members of the Great Lakes Restoration Initiative (GLRI) Field Crew (Danielle Hurley, Brooks Davey, Emily Sheridan and Cody Mendoza) and SLELO-PRISM Coordinator Rob Williams.

Over the course of two hours, a total of approximately three cubic yards of mature Water Chestnut plants were removed. Plants were collected in black garbage bags and brought to The Nature Conservancy's Northern NY Field Office for proper disposal.

Follow-up plans for this emerging Water Chestnut occurrence include a planned effort by SLELO Education and Outreach Coordinator Sarah Conley to contact landowners and homeowners adjacent to the Water Chestnut occurrence to enlist their help in continued surveillance and management of this invasive species population.



Figure 7: Map showing approximated relative density of Water Chestnut occurring in eastern Guffin Bay. The darker red area contained larger patches of Water Chestnut growing in close proximity to each other, while the light red area contained only widely dispersed small patches of plants.



Figure 8: GLRI Field Crew members Danielle Hurley and Brooks Davey search for Water Chestnut in eastern Guffin Bay on July 10, 2012. Photo by Greg Chapman.



Figure 9: A portion of the Water Chestnut removed from eastern Guffin Bay.

Data Tables and Maps

Refer to subsequent maps for point locations. Key to abbreviations used in all tables: **EWM**: Eurasian Water-milfoil
CLPW: Curly-leaf Pondweed **ZM**: Zebra/Quagga Mussels

Table 1: Rake toss results from Chaumont Bay (Water Chestnut survey).

Location: Chaumont Bay							Dates: 7/3, 7/5/, 7/6 2012
Point	Lat/Long	Throw	Depth	# Spp.	# Inv.	Invasive Spp. present	Notes
274	44.02931937	1	9	3	2	EWM, CLPW	
	-76.21376325	2	9	2			
275	44.02904235	1	7	1			
	-76.21514132	2	7	2			
001	44.06838038	1	3	3	1	EWM	
	-76.14808836	2	3	5	1	ZM	
002	44.07335739	1	3	5	1	EWM	
	-76.1354176	2	3	4	1	EWM	
003	44.06205741	1	12	3			
	-76.13545465	2	11	4	1	EWM	
004	44.03890315	1	5	3	1	EWM	
	-76.13370812	2	5	3	1	EWM	
005	44.03866947	1	4	1			
	-76.12333786	2	4				
017	44.08074285	1	3	3		EWM	
	-76.19647365	2	3	3		EWM	

Table 2: Water Chestnut observations at HPA-5.

Location: Chaumont Bay (HPA-5)			Date: 7/5/2012
Point	Lat/Long	Species	Notes
006	44.03966515	Water Chestnut	40 to 50 plants amongst floating vegetation
	-76.12065674		
007	44.04061063	Water Chestnut	Less than 10 plants
	-76.12012583		
008	44.04105345	Water Chestnut	Less than 10 plants
	-76.11972065		
009	44.04135159	Water Chestnut	Less than 10 plants
	-76.11918563		
010	44.04149693	Water Chestnut	Less than 10 plants
	-76.11898664		
011	44.04203245	Water Chestnut	Less than 10 plants
	-76.11810822		
012	44.04341295	Water Chestnut	Less than 10 plants
	-76.11610754		
013	44.04540868	Water Chestnut	Less than 5 plants
	-76.11194719		
014	44.04519939	Water Chestnut	Less than 5 plants
	-76.11235119		
015	44.04460344	Water Chestnut	Less than 5 plants
	-76.11335367		
016	44.0440991	Water Chestnut	Less than 5 plants
	-76.11395591		

Table 3: Swallow-wort observations at HPA-2.

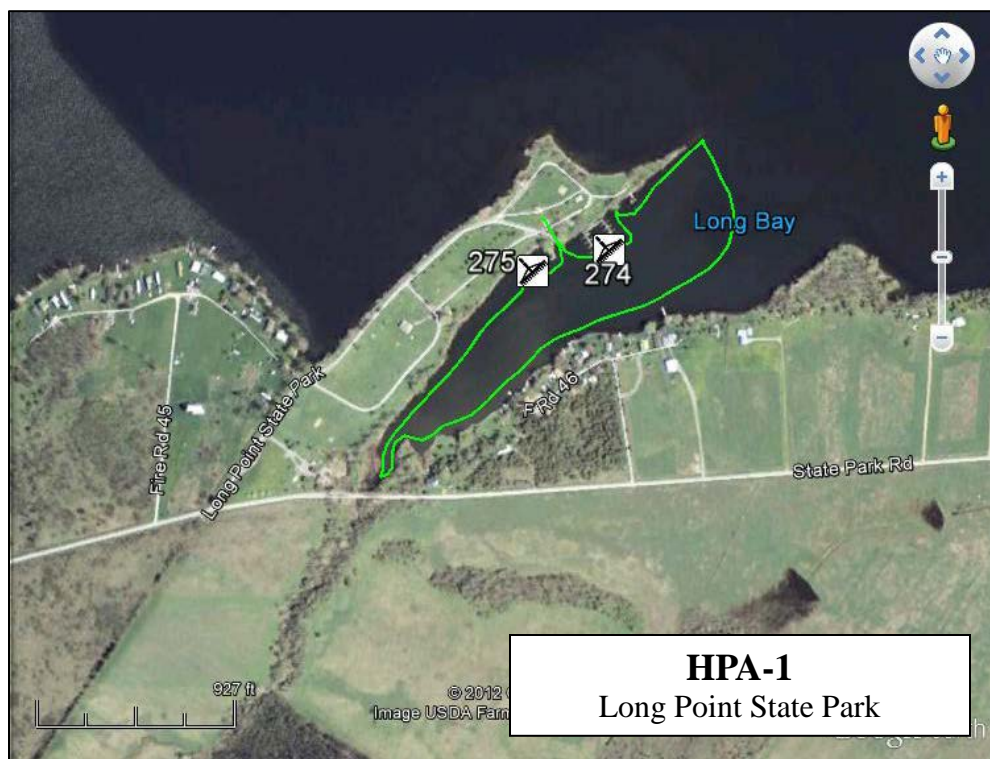
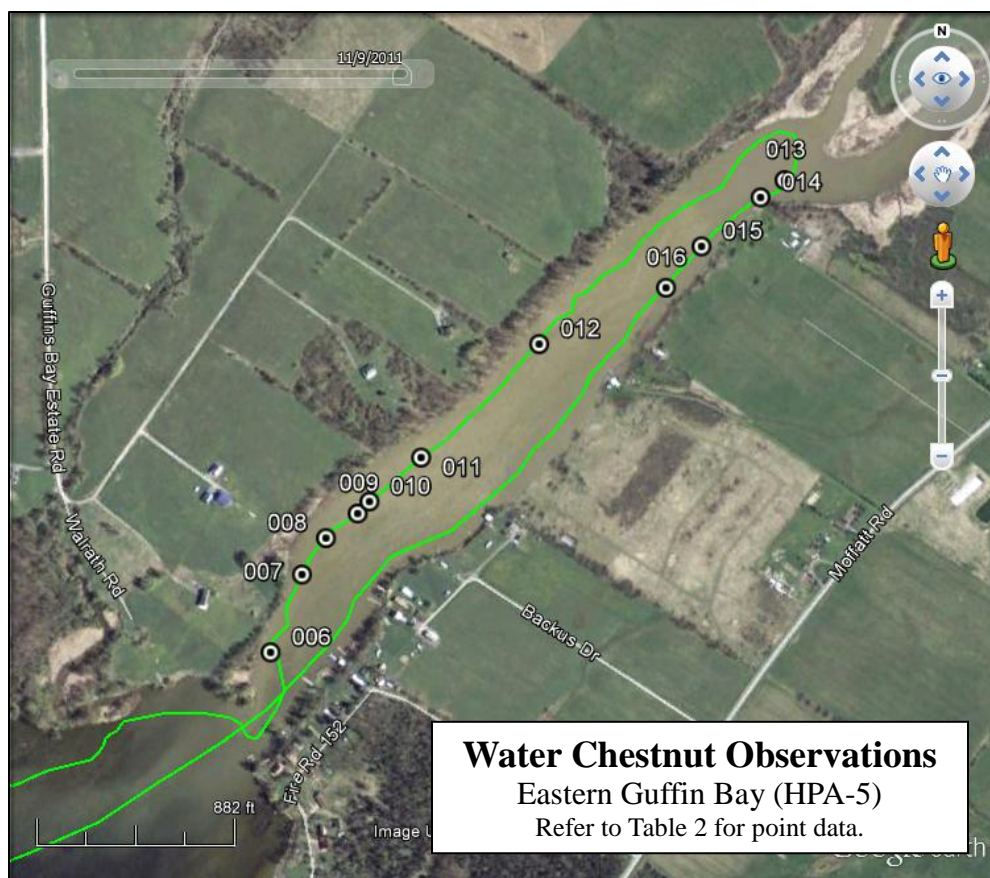
Location: Chaumont Bay (HPA-2)			Date: 7/3/2012
Point	Lat/Long	Species	Notes
277	44.01143071	Swallow-wort	Along CR 57, south of boat launch. Plants hand pulled.
	-76.28640376		
278	44.01136198	Swallow-wort	Along CR 57, south of boat launch. Plants hand pulled.
	-76.28614501		
279	44.01127925	Swallow-wort	Along CR 57, south of boat launch. Plants hand pulled.
	-76.28591778		
280	44.01012171	Swallow-wort	Along CR 57, south of boat launch. Plants hand pulled.
	-76.28320288		
281	44.01113089	Swallow-wort	Larger patch (approximately 100 plants) on boat launch property. Plants not removed.
	-76.28722686		

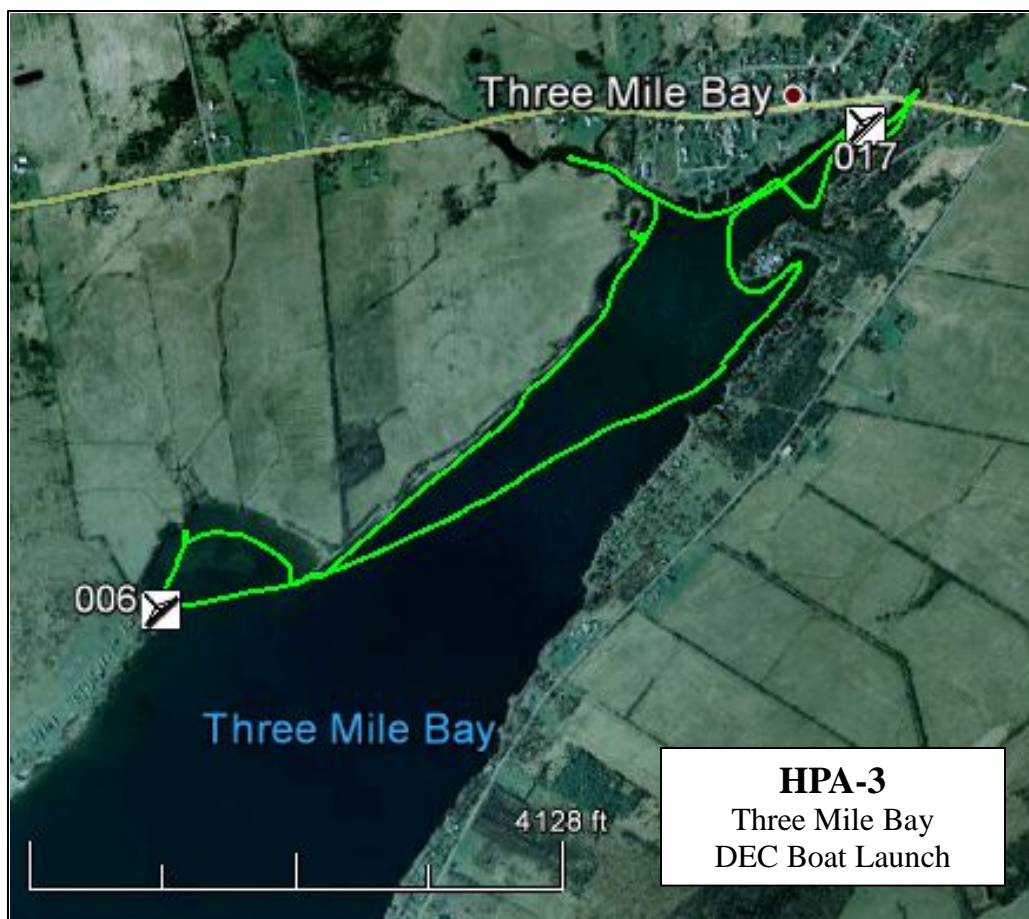
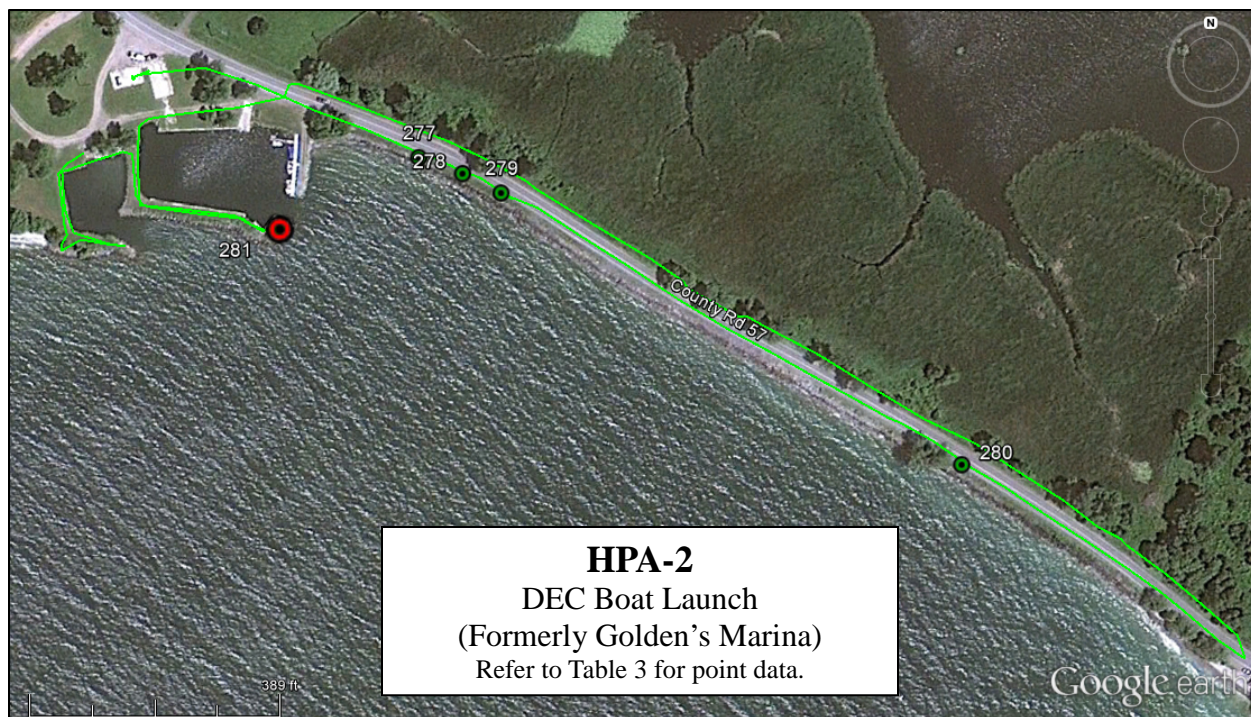
Table 4: Hydrilla survey rake toss data (*continued on next page*).

Location: Chaumont Bay							
HPA-1: Long Point State Park							Date: 8/9/2012
Point	Lat/Long	Throw	Depth	# Spp.	# Inv.	Invasive Spp. present	Notes
274	44.02931937	1	8'	3	0		Visual: EWM
	-76.21376325	2	7'	3	0		
275	44.02904235	1	6'	2	1	ZM	
	-76.21514132	2	6'	2	1	EWM	
HPA-3: Three Mile Bay							Date: 8/9/2012
Point	Lat/Long	Throw	Depth	# Spp.	# Inv.	Invasive Spp. present	Notes
006	44.07314164	1	3'	4	1	EWM	Visual: ZM
	-76.13526673	2	3'	3	1	EWM	
017	44.08074285	1	2'	3	0		
	-76.19647365	2	1'	5	1	EWM	

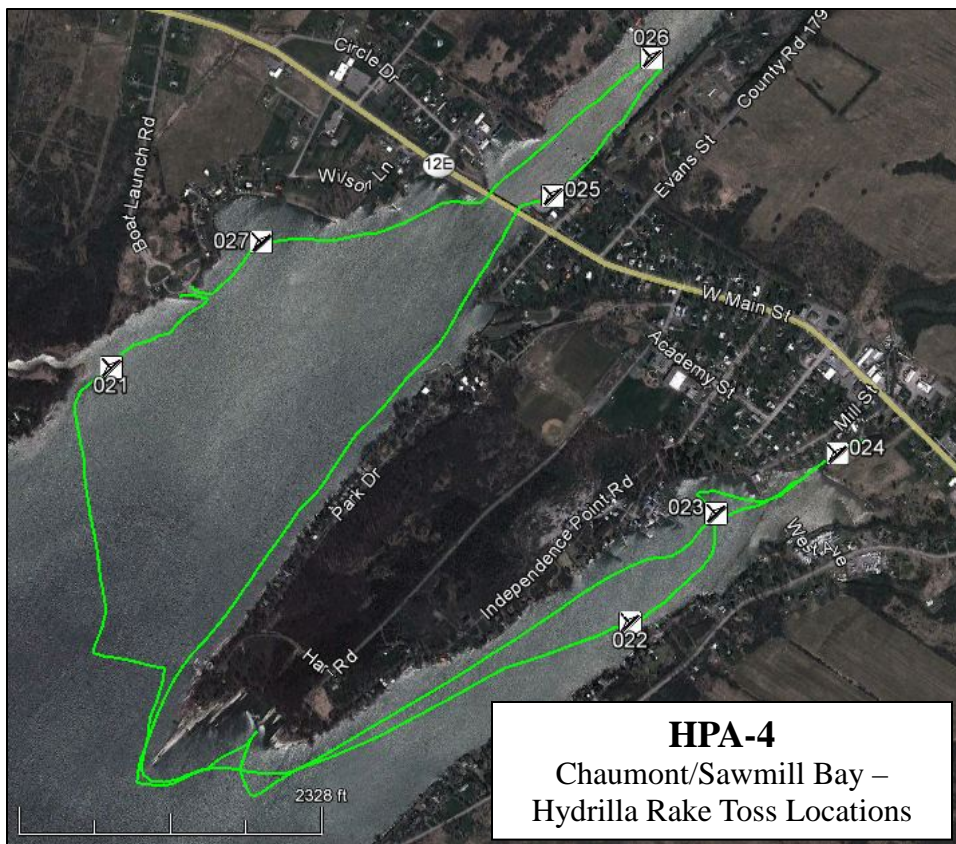
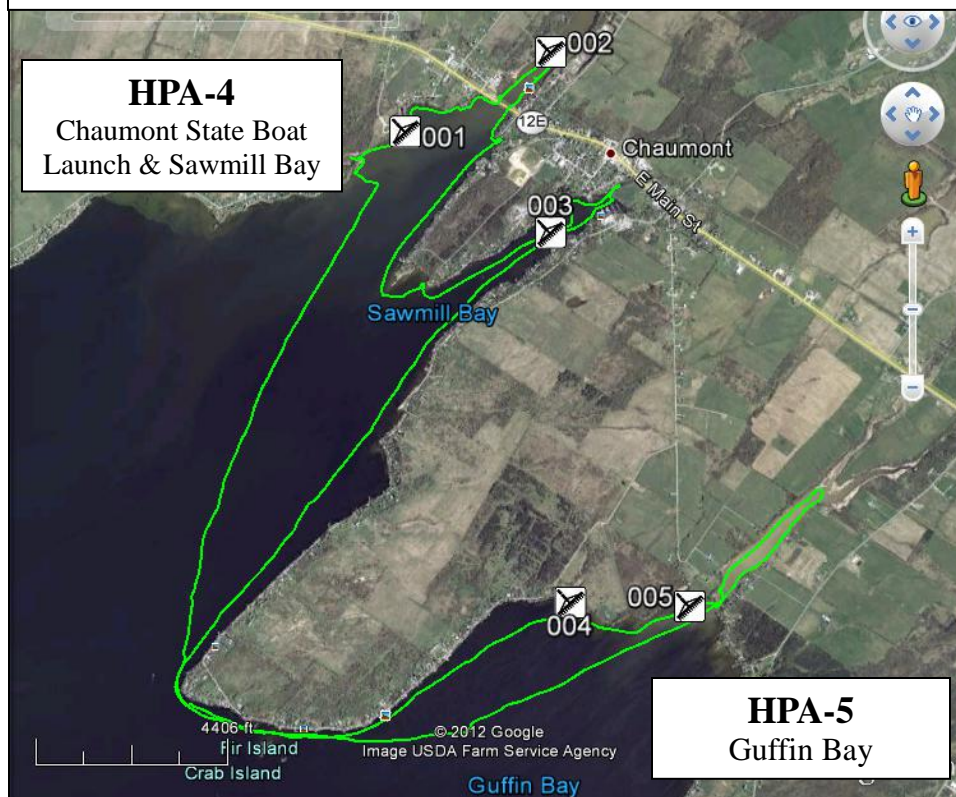
HPA-4: Chaumont State Boat Launch/Sawmill Bay							Date: 8/13/2012
Point	Lat/Long	Throw	Depth	# Spp.	# Inv.	Invasive Spp. present	Notes
021	44.06663711	1	1.5'	3	0		
	-76.15108363	2	2'	2	0		
022	44.0612794	1	9'	4	1	EWM	
	-76.13590828	2	9'	4	1	EWM	
023	44.06357059	1	9'	7	2	EWM, ZM	
	-76.13339757	2	7'	6	2	EWM, ZM	
024	44.06482285	1	6'	5	1	EWM	
	-76.12985437	2	5'	5	1	EWM	
025	44.07023756	1	6'	4	1	EWM	
	-76.13816611	2	6'	4	1	EWM	
026	44.07314164	1	5'	6	2	EWM, ZM	
	-76.13526673	2	4'	6	2	EWM, ZM	
027	44.06926769	1	7'	4	1	EWM	
	-76.14669202	2	6'	5	1	EWM	

HPA-5: Guffin Bay							Date: 8/13/2012
Point	Lat/Long	Throw	Depth	# Spp.	# Inv.	Invasive Spp. present	Notes
008	44.03896753	1	3'	4	1	EWM	
	-76.1337978	2	3'	4	2	EWM, ZM	
009	44.03971142	1	3'	3	1	EWM	
	-76.12059362	2	2'	4	1	EWM	
010	44.03992038	1	3'	3	1	EWM	
	-76.11997026	2	3'	5	1	EWM	
011	44.04103132	1	2'	4	1	EWM	
	-76.11862094	2	2'	5	1	EWM	

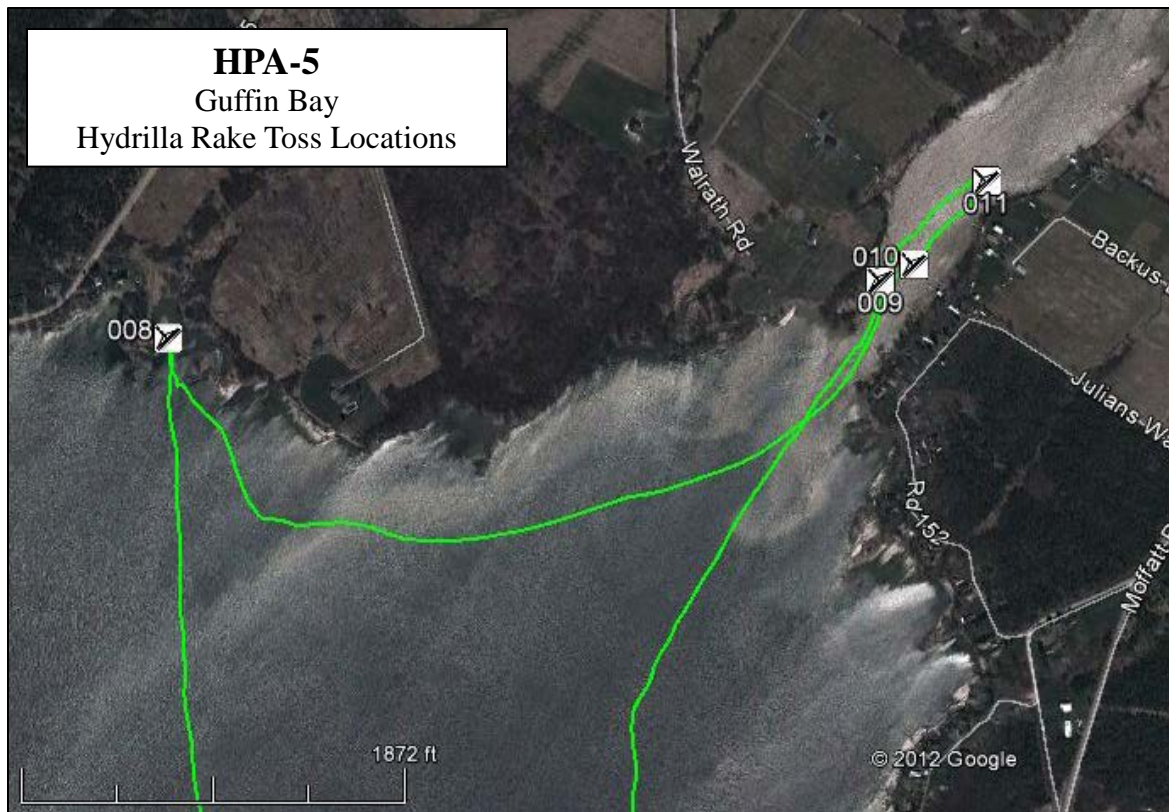




Water Chestnut Rake Toss Locations Only



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