Special Note

The partners of the SLELO PRISM have identified 24 Priority Conservation Areas on which we conduct early detection surveillance on a two year rotation. This report is to be considered as an addendum to the original field report.

2015 Field Survey Addendum to Mud Lake

SLELO-PRISM Early Detection Surveillance July 29th, 2015

Report prepared by Caitlin Muller and Ben Hansknecht on July 30th, 2015



Figure 1. Panoramic view of Mud Lake at the Canoe entrance. Photo taken by Caitlin Muller

Summary:

The Early Detection Field Crew surveyed previously established HPA's in Mud Lake (Figure 1) for new occurrences of invasive species. A terrestrial survey was conducted by hiking the Mud Lake ATV Trail which was comprised of three HPA's. The 2013 field crew determined that the aquatic and terrestrial HPA's were separate; each new track began with HPA 1.

No Prevention "Watch-list" species were found in the 2015 survey. Throughout the ATV trail occurrences of spotted knapweed (*Centaurea maculosa*) populations were observed. Some populations consisted of fewer than 5 plants, whilst others entailed more individuals and accordingly spanned across larger areas. One of the larger, more notable infestations grew along the fence marking a homeowner's backyard (Figure 2 and 3).



Figure 2. Spotted knapweed found along the Mud Lake ATV Trail. Photo taken by Caitlin Muller



Figure 3. Spotted knapweed found along the Mud Lake ATV Trail. Photo taken by Caitlin Muller.

Purple loosestrife (*Lythrum salicaria*) was observed along the ATV trail near terrestrial HPA 3 (Figure 4) and at the aquatic HPA's 4, 6, and 11. These infestations were not recorded in the 2013 field survey. Eurasian water milfoil (*Myriophyllum spicatum*) was observed in the majority of the HPA's: all HPA's excluding HPA's 2, 10, and 11. European frog-bit (*Hydrocharis morsus-ranae*) was seen at the entrance to Mud Lake and at HPA's 1 and 11.

As stated in the 2013 Mud Lake Field Report, all aquatic raketoss survey locations were improvised upon initial site visitation, supplementing the 3 prepared terrestrial HPA's. It can be said that the designation of HPA's 8 and 9, given that their location is suitably representative of Mud Lake's interior, was arbitrary and their locations may require further reevaluation upon future visitations.



Figure 4. Purple loosestrife found on the Mud Lake ATV Trail. Photo taken by Caitlin Muller.

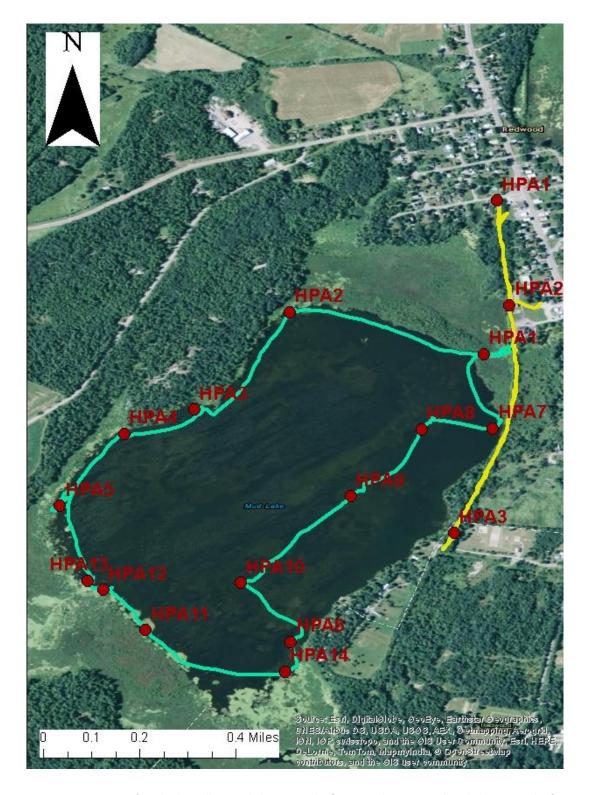


Figure 4. HPA Map of Mud Lake. Yellow track denotes path of terrestrial survey. Teal track denotes path of aquatic survey.

Waypoint	Description	Latitude	Longitude	Depth	# of Species	# of Invasives	Invasive Species	Notes	
	Path to	44.29612	-75.80274	4 ft	4	0		Visual: Eurasian Water Milfoil and Frogbit	
HPA 1	Canoe Access				4	0			
HPA 2		44.29739	-75.8086	4 ft	4	0			
					4	0		\". - ·	
НРА 3		44.29445	-75.81146	6 ft	2	0		Visual: Eurasian Water Milfoil and	
		11.23113	75.01110		1	0		Spotted Knapweed	
НРА 4		44.29373	75.04350	4 ft	4	1	Eurasian Water Milfoil	Visual: Purple Loosestrife	
		44.29373	-75.81358	411	4	1	Eurasian Water Milfoil		
HPA 5		44.29155	-75.81551	3 ft	2	0		Visual: Eurasian	
			70.0202		1	0		Water Milfoil	
HPA 6		44.28746	-75.80855	6 ft	3	0		Visual: Purple	
	Shore		-75.80247	6 ft	3	0		Loosestrife Visual: Eurasian Water Milfoil	
НРА 7	meets ATV	44.29389				_			
	Trail				3	0			
HPA 8		44.29386	-75.80462	7.5 ft	4	1	Eurasian Water Milfoil		
					4	0			
HPA 9		44.29184	-75.80675	4 ft	2	0		Visual: Eurasian	
	Daada				3	0		Water Milfoil	
	Reeds toward		-75.81007	4 ft	3	0			
HPA 10	Lake Center	44.28924			2	0			
					2	0		Visual: Frogbit and Purple Loosestrife	
HPA 11		44.28781	-75.81293	3 ft	3	0			
	Duck			3 ft	2	0		Visual: Eurasian	
HPA 12	Hunting Stand	44.28903	-75.8142		3	0		Water Milfoil	
	Duck				2	0		Visual: Eurasian	
HPA 13	Hunting Stand	44.2893	-75.81467	3 ft	2	0		Water Milfoil	
HPA 14		44.28656	6 -75.80872	3 ft	5	0		Visual: Eurasian Water Milfoil	
		11.20030			5	0			

Table 1. Aquatic HPA's surveyed and rake-toss results at Mud Lake

Waypoint	Description	Latitude	Longitude	Species	Notes
HPA 1	ATV Trail meets Pine Street	44.30075	-75.80234	Spotted Knapweed	
HPA 2	Town Park with ATV Trail	44.29759	-75.80197	Spotted Knapweed	
НРА 3	ATV Trail meets Private Property	44.29073	-75.80365	Spotted Knapweed and Purple Loosestrife	

Table 2. Terrestrial HPA's surveyed at Mud Lake