

2016 Field Survey
West Branch of Fish Creek

SLELO-PRISM Early Detection Surveillance
June 20th - 23rd, 28th - 29th, 2016

Report prepared by Ashley Gingeleski and Ben Hansknecht on July 5th, 2016



Figure 1. Panorama of Fish Creek at Trestle Road. Photo by Ashley Gingeleski.

Introduction and Background

The West Branch of Fish Creek is a stream that begins from Kasoag Lake near Williamstown, NY and runs south to Oneida Lake (**Figures 1 and 2**). The East Branch of Fish Creek joins the West Branch near Blossvale, NY and the two branches of the stream collectively flow into Oneida Lake at Sylvan Beach, NY. Atlantic salmon, stocked brown trout, and brook trout can be found in the West Branch of Fish Creek. Public fishing is allowed along the stream, and there are multiple sites of public fishing access. These include parking areas along Lovers Lane, Cemetery Road, VanBuren Road, Pennymix Road, and Trestle Road.¹

The West Branch of Fish Creek is the focus of this survey because of the potential spread of an invasive species called fanwort (*Cabomba caroliniana*). There are confirmed populations of fanwort in Kasoag Lake, and the expansion of the species' range downstream is a growing concern (**Figures 3 and 4**).

Survey Methods and Observations

In June of 2016, the SLELO Early Detection team surveyed portions of the West Branch of Fish Creek for the possible spread of fanwort from Kasoag Lake (**Figure 5**). This was accomplished by means of the rake toss technique as well as visual observations. The rake toss method of aquatic plant surveying involves tossing a weighted double-sided rake off either side of one's vessel and using it to uproot vegetation for species identification. Attached to the rake is a rope marked in increments of feet, which is used to calculate water depth during each toss. Visual observations involve scanning both aquatic and terrestrial surroundings for noticeable, defining attributes of target and watch-list species for visual identification.

¹ Information about the West Branch of Fish Creek found on the NYS DEC website <http://www.dec.ny.gov/outdoor/95213.html>

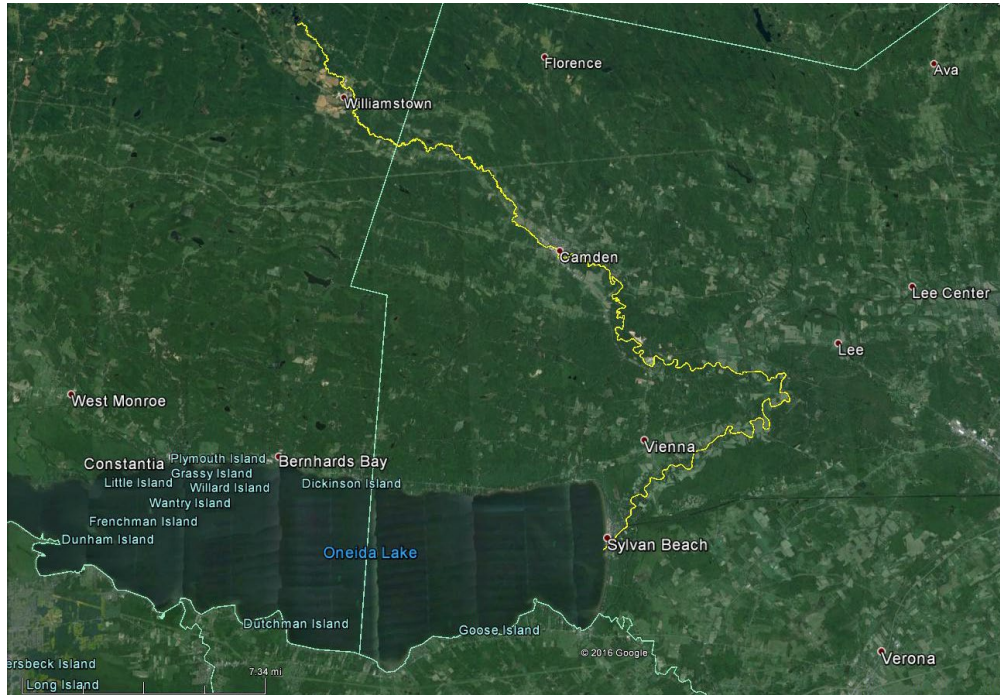


Figure 2. Overview of the West Branch of Fish Creek.

Prior to conducting these surveys, ten locations along the creek were determined to be used as starting survey sites for this initiative. These sites, henceforth known as Highly Probable Areas (HPAs), were chosen by the SLELO Coordinator Rob Williams according to their accessibility for both canoe launching and shore tosses (**Figure 6**). HPAs are environments where invasive species are likely to be found as a result of certain characteristics, including: high rates of human activity, still water, shallow photic zones. From these sites, several areas were then chosen for rake tosses using those characteristics. HPAs and toss points were marked using a Garmin handheld GPSMAP® 62. The planned access point at the Route 17 Bridge outside Williamstown, NY proved to be inaccessible for shore tosses.

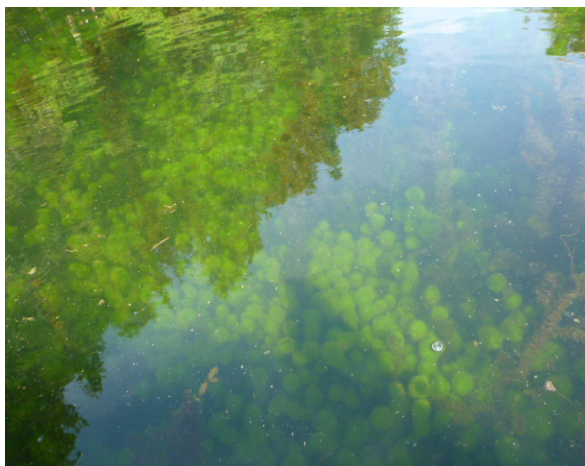


Figure 3. Fanwort population at Kasoag Lake. Photo by Ashley Gingeleski.



Figure 4. Close-up of Kasoag Lake fanwort sample. Photo by Ashley Gingeleski.



Figure 5. Ben Hansknecht and Ashley Gingeleski.
Photo by George Stowers.

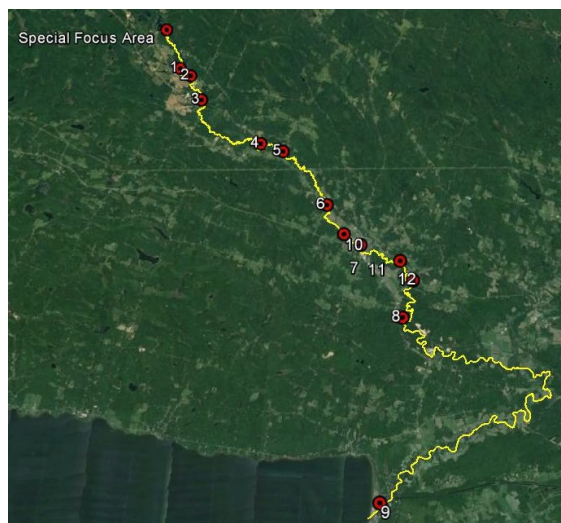


Figure 6. Map of Fish Creek with HPAs.

Fanwort was not observed in the surveys at these initial sites. An additional five locations were visited for further surveillance. Of these, three were accessible for rake tosses. Additionally, the section of the West Branch of Fish Creek between Kasoag Lake and Base Bridge Road was added as a special focus area. This section of the creek was surveyed due to its proximity to reported sightings of fanwort by members of the Kasoag Lake community. It was kayaked by the Early Detection Team, and was assessed using both rake tosses and visual observations through the clear water (**Figure 7**).

**No Prevention “Watch-list” species
were found in the 2016 survey.**

Target species determined to be in the West Branch of Fish Creek during this field survey include curly-leaf pondweed (**Figure 8**), Eurasian water-milfoil, phragmites, Bohemian knotweed (**Figure 9**), yellow iris, and Japanese knotweed.

**No fanwort was found to be present in
Fish Creek during the 2016 field survey.**

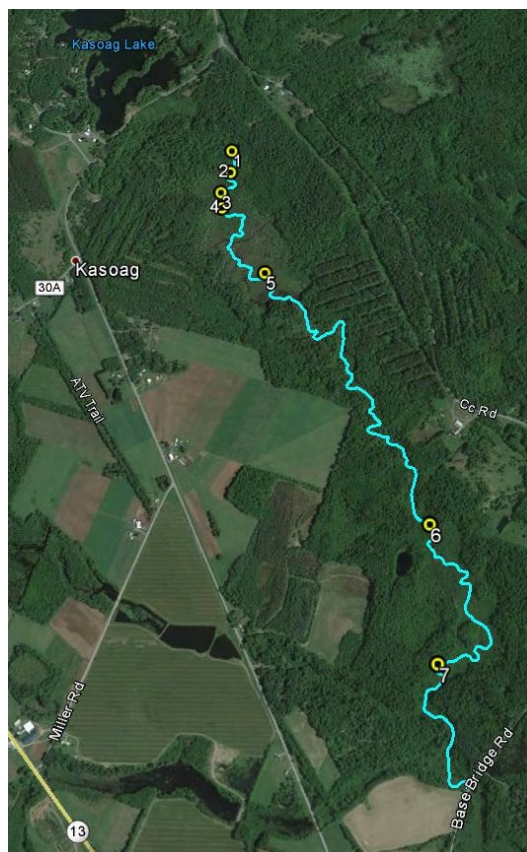


Figure 7. Kayak Route for HPA 13.



Figure 8. Curly-leaf pondweed at HPA 2.
Photo by Ashley Gingeleski.



Figure 9. Bohemian knotweed at HPA 9.
Photo by Ashley Gingeleski.

Curly-leaf pondweed was found at HPAs 1 - 6, 9 - 10, and the special focus area. Eurasian water-milfoil was found at HPAs 5, 9, and the special focus area. Phragmites was found at HPA 9. Bohemian Knotweed was found at HPA 8. Yellow iris was found at HPA 9. Japanese knotweed was found at HPA 9 (**Tables 1, 2, and 3**).

Curly-leaf pondweed was the most widespread target list species found along Fish Creek, occupying every accessible HPA of the stream's upper half. Additionally, HPA 9 possessed the most variety in invasive species; including all observed in this survey, except for Bohemian knotweed.

Various native species were determined to be present using the rake toss and visual observation methods. These species include: elodea, fragrant waterlily, yellow pond lily, filamentous green algae, broadleaf pondweed, eelgrass, duckweed, coontail, water-shield, arrowhead, bladderwort, aquatic mosses, water buttercup, slender pondweed, vernal water-starwort, variable water milfoil, white-stem pondweed. Another species of interest detected was dodder (*Cuscuta spp.*), a parasitic plant considered rare in New York State, located at 43° 27' 47.376" N by 75° 54' 53.496" W, and 43° 27' 46.0434" N by 75° 54' 54.144" W (**Figure 10**).²



Figure 10. *Cuscuta spp.* within the special focus area. Photo by Ashley Gingeleski.

²Information about *Cuscuta spp.* found in http://www.dec.ny.gov/docs/fish_marine_pdf/2010rareplantstatus.pdf

Table 1. Original Highly Probable Areas (HPAs) along the West Branch of Fish Creek and results of rake tosses.

HPAs	Toss	Description	Latitude	Longitude	Throw	Depth (ft)	# Spp.	#Inv.	Invasives	Visuals
1	1	Base Bridge Rd	43.44141	-75.90108	1	1.75	2	1	CP	
					2	1.75	1	0		
2	1	Lovers Lane Downstream	43.43655	-75.89164	1	2.2	0	0		
					2	2.2	0	0		
	2	Upstream	43.43671	-75.89237	1	1	2	1	CP	CP
					2	0.2*	2	1	CP	
3	1	State Rte 13 Williamstown Upstream	43.4229	-75.88166	1	0.2*	5	1	CP	CP
					2	0.2*	5	1	CP	
	2	Downstream	43.42166	-75.88141	1	2	2	0		
					2	1.9	2	0		
4	1	State Rte 13 Westdale Downstream	43.39406	-75.82818	1	3	5	1	CP	
					2	3	4	0		
	2	Downstream Cove	43.39401	-75.82763	1	2	5	0		
					2	2.5	2	0		
	3	Upstream	43.39443	-75.83149	1	0.5*	3	0		
					2	0.5*	4	1	CP	
5	1	Cemetery Rd Near Impoundment	43.38952	-75.81206	1	3	2	0		
					2	3.5	2	0		
	2	Upstream	43.38936	-75.81385	1	3.8	3	1	EW	CP, EW
					2	2.5	6	1	CP	
6	1	Between Pennymix and Howard Roads	43.3578	-75.77637	1	1.5	3	0		
					2	2	2	1	CP	
7	1	Camden Mexico St	43.33461	-75.74918	1	1.5	1	0		
					2	1	1	0		
8	1	Trestle Rd Downstream	43.28976	-75.71414	1	0.5*	1	0		
					2	2.2	1	0		
	2	Upstream	43.29447	-75.7151	1	7	0	0		
					2	2	0	0		
9	1	Sylvan Beach	43.20304	-75.71798	1	3	2	0		
					2	3	2	0		
	2	Near Residentials	43.2058	-75.71729	1	2	1	0		EW
					2	2	1	0		
	3	Near Discharge Site	43.21384	-75.71432	1	10	0	0		
					2	8.5	0	0		
	4	Near shore	43.21364	-75.71315	1	4	1	0		CP, PH, EW
					2	3	1	0		
	5	Shallow area	43.21149	-75.71162	1	2	2	0		PH, EW
					2	2	2	0		
	6	Quiet cove	43.20585	-75.71422	1	2.1	3	1	EW	EW
					2	2.3	1	0		
	7	Close to canal	43.20292	-75.71703	1	4.2	2	0		EW
					2	3.5	2	0		

Key: EW = Eurasian water-milfoil CP = Curly-leaf pondweed PH = Phragmites

*Recorded depths less than 1 ft signifies areas where rake tosses were not possible, but water depth was recorded.

Table 2. Additional Highly Probable Areas (HPAs) along the West Branch of Fish Creek and results of rake tosses.

HPAs	Toss	Description	Latitude	Longitude	Throw	Depth (ft)	# Spp.	#Inv.	Invasives	Visuals
10	1	Mill St Upstream	43.34433	-75.76483	1	1	1	0		
					2	1.5	2	0		CP
	2	Downstream	43.3413	-75.76202	1	0.5*	1	0		
					2	1.5	1	0		
11	1	Brewer Rd Downstream	43.325	-75.71855	1	0.2*	0	0		
					2	0.4*	0	0		
	2	Upstream	43.32605	-75.71915	1	1	0	0		
					2	0.5*	0	0		
12	1	Blakesley Rd Upstream	43.31466	-75.70844	1	0.3*	0	0		
					2	1.1	0	0		
	2	Downstream	43.31437	-75.70874	1	4.5	0	0		
					2	1	0	0		

Key: CP = Curly-leaf pondweed

*Recorded depths less than 1 ft signifies areas where rake tosses were not possible, but water depth was recorded.

Table 3. Tosses along special focus area near Kasoag Lake along the West Branch of Fish Creek.

Toss	Description	Latitude	Longitude	Throw	Depth (ft)	# Spp.	#Inv.	Invasives	Visuals
1	Near Kasoag Lake Outlet	43.46649	-75.9158	1	1.9	2	1	CP	CP, EW
				2	2.2	0	0		
2	Shallow area	43.46549	-75.91573	1	0.8*	1	1	CP	CP
				2	0.2*	0	0		
3	Near Beaver Dam	43.46454	-75.91611	1	0.8*	3	0		CP
				2	1.3	2	0		
4	Quiet area	43.46384	-75.91596	1	4.5	2	0		
				2	3.5	1	0		
5	Swampy area	43.46091	-75.91319	1	3	2	0		
				2	3	2	0		
6	Calm area	43.45061	-75.90351	1	2.8	2	0		
				2	2.9	2	0		
7	Quiet cove	43.44548	-75.90274	1	1	3	0		
				2	1	1	0		

Key: EW = Eurasian water-milfoil CP = Curly-leaf pondweed

*Recorded depths less than 1 ft signifies areas where rake tosses were not possible, but water depth was recorded.

Table 4. Waypoints (WPs) of visually observed invasive species along the West Branch of Fish Creek.

<i>WPs</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Species</i>	<i>Notes</i>
1	43.29248	-75.71478	BK	
2	43.2918	-75.71338	BK	
3	43.28907	-75.71413	BK	
4	43.29124	-75.71332	BK	
5	43.28946	-75.71451	BK	
6	43.29513	-75.71446	BK	Other Side of Bridge
7	43.29495	-75.71465	BK	
8	43.29385	-75.71487	—	Rusty Crayfish Survey None Found
9	43.2047	-75.71809	YI	
10	43.21193	-75.71354	JK	
11	43.21451	-75.71352	JK	
12	43.21179	-75.71231	PH	
13	43.20483	-75.71739	PH	
14	43.46546	-75.91579	EW	

Key: EW = Eurasian water-milfoil BK = Bohemian knotweed PH = Phragmites
 YI = Yellow iris JK = Japanese knotweed