

2020

Schroon Lake Boat Inspection & Invasive Species Prevention Program



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Program History

The Schroon Lake Aquatic Invasive Species Prevention Program was started through a cooperative relationship between 2 municipalities (Schroon and Horicon) and the area lake associations (Schroon Lake Association and the East Shore Schroon Lake Association).

In addition to preventing the introduction of new invasive species, the communities in the watershed contribute annually to remove invasive Eurasian watermilfoil and Curly-leaf Pondweed. The AIS Prevention Program was started as a means of maintaining the gains made with AIS eradication efforts.

Program Overview

North Schroon Lake

The Town of Schroon operates a boat inspection station at the public boat launch, located on Dock Street (herein “Schroon Launch”). Additionally, the Town operates a decontamination station on Route 74 (herein “North Schroon Decon”).

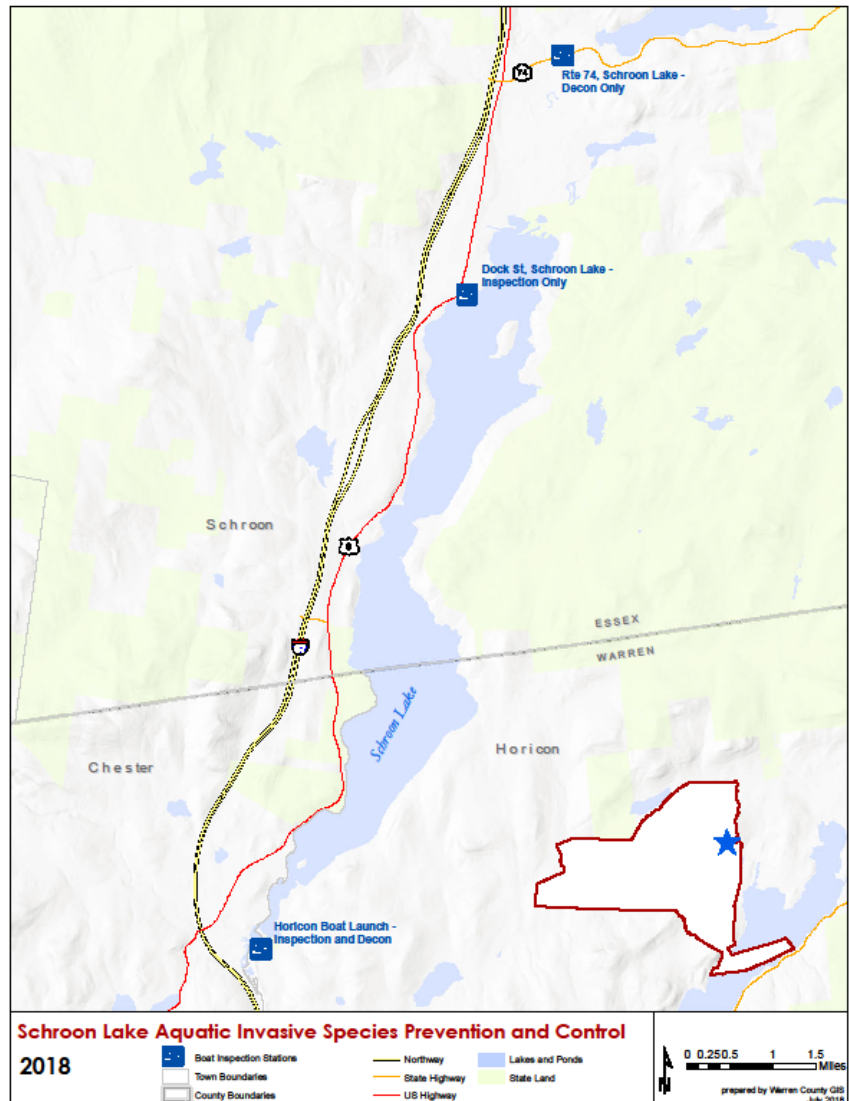
Horicon

The Town of Horicon operates a boat inspection station (herein “Horicon Launch”) and decontamination station (herein “Horicon Decon”) at the Department of Environmental Conservation public boat launch, located at the corner of Warren County Route 62 (Glendale Road) and County Route 15 (East Shore Drive).

Staffing

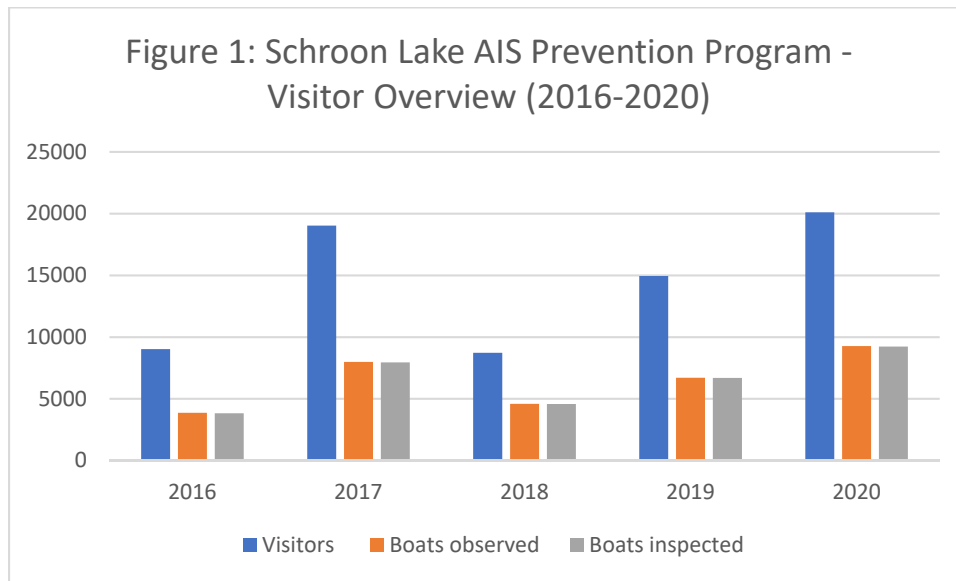
Staffing for the boat inspection and decontamination stations is provided by seasonal town employees. Site supervision and collection of data is provided by the Adirondack Watershed Institute (AWI).

The seasonal town employees attend training provided by AWI, in which these lake stewards will learn how to properly inspect and clean watercraft.



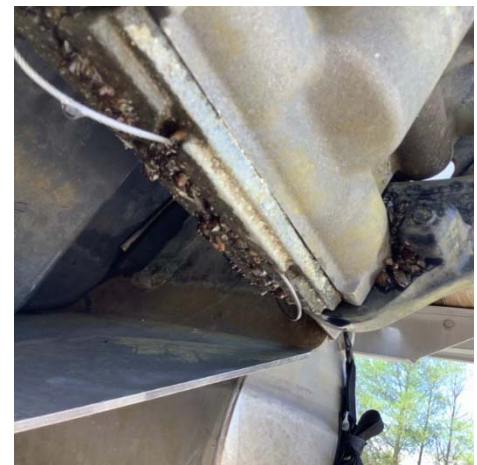
Program Report – 2020

Since the program's inception in 2016, the lake stewards have welcomed almost 72,000 visitors and prevented the introduction of 92 aquatic invasive species into Schroon Lake.



As is evident from the graph above, 2020 was another record year for visitors to the boat inspection and decontamination stations around Schroon Lake. In fact, according to data released by the Adirondack Watershed Institute (AWI) the Horicon Launch ranked as the 3rd most visited inspection site in the Adirondack Park.

Although 2020 presented a number of challenges to small communities, like those participating in this project. However, local officials understood the importance of developing solutions to maintain the inspection and decontamination stations around Schroon Lake. Fortunately, inspections were in place when a boater visited the Horicon Launch, after boating on Saratoga Lake. This visitor's boat was heavily encrusted in Zebra mussels. Staff spent over 2 hours cleaning the vessel, while an agitated boater waited. The Department of Environmental Conservation was notified of the transport of invasives and the boater was given a warning in accordance with State Law. The Adirondack Explorer recently discussed a renewed push by local and regional groups pushing for the renewal of the invasive species transport law with greater penalties, <https://www.adirondackexplorer.org/stories/leaks-in-adirondack-water-defenses>.



Zebra mussels discovered on vessel at the Horicon Launch by staff, Summer 2020.

In late 2017, the Town of Schroon and the Schroon Lake Association constructed a decontamination station on the northern portion of the watershed, on Route 74. The availability of this decontamination station eliminated the need for visitors to overwhelm the decontamination station in Horicon. Additionally, Paradox Lake, which flows into Schroon Lake, benefits from its proximity to the North Schroon Decon Station (Note: Paradox Lake was named an in-land waterway in 2019).

AIS Spread Prevention Awareness

Another key component of the Schroon Lake AIS Prevention Program is educating the boating public about the importance of preventing the spread of non-native species. Building this awareness not only protects Schroon Lake, but can persuade boaters to practice “Clean, Drain, Dry” in any waterway.

The Town of Schroon and Horicon partner with the Adirondack Watershed Institute (AWI) to use tablets and track important field data at the inspection and decontamination sites. While one staff member is inspecting the vessel, another is obtaining data about the previous whereabouts and the awareness of invasive species spread prevention. Below (Table 1) is description of the boater AIS Prevention Awareness, collected in 2020.

Table 1: Schroon Lake AIS Prevention Program – Spread Prevention Awareness

Visitor Responses	AIS Spread Prevention Awareness											# Groups Asked
	Yes	Inspect	Wash	Drain	Bait	LW	Dry	Decon	Same Lake	First/Frozen	Didn't Ask	
totals	5791	1227	650	184	5	44	358	486	3148	513	2695	6302
percentage of total groups asked	92%	19%	10%	3%	0%	1%	6%	8%	50%	8%		

Yes = showed AIS spread prevention awareness; Drain = drained bilge; Bait = emptied bait bucket/ disposed of bait; LW = drained livewell; Dry = dried boat; Decon = visited decon station; Same Lake = boat only goes in this lake; First/Frozen = first launch of the season or frozen bait

Lake Steward Inspection Methods

Lake stewards provide a courtesy inspection of boats entering and leaving through the boat launch. Stewards perform a visual inspection of propellers, outdrives, trailer bunks, axles, live wells, bilges, areas containing standing water, and any other locations potentially harboring AIS. Stewards also ask visitors to lower their motors to a vertical position to eliminate standing water and drain their bilges into a bucket provided by the steward. Visitors are then handed informational literature about the program and are encouraged to inspect and clean their boats before visiting the next time.

Any boats failing to meet New York State’s Clean, Drained Dry standard are requested to comply with a voluntary decontamination at the nearest decontamination station. In order to keep the process quick and give boaters a positive experience, only the part of the boat failing inspection is decontaminated. Visible plants are removed by hand.

Stewards conduct decontaminations by moving from the inside to the outside of the vessel. Internal compartments found with standing water are flushed with low-pressure hot water (140 degrees F). This includes bilges, ballasts, and live-wells as well as any other area where standing water may have accumulated. If rigging fishing lines or other gear was found to need decontamination, the items were removed from the vessel if possible and placed on the ground for high-pressure hot water decontamination.

Outboards and lower units found with standing water in them undergo a flushing process, which consists of low-pressure hot water introduced to the lower unit via flushing muffs, the boater started the motor, and running the motor until the cooling water discharge was 140 degrees F. Hulls requiring decontamination are carefully washed with high pressure hot water. Technicians direct wash water to remove surface organisms by holding the wash wand at a 45-degree angle to the hull of the boat and slowly sweep in one direction.

In addition to these standard practices, staff at each of the boat inspection and decontamination stations implemented new safety protocols to reduce the spread of COVID-19. Staff wore face masks when social distancing could not be maintained.



Town of Horicon lake steward employee inspecting a boat entering Schroon Lake for AIS (2020)

Schroon Lake Aquatic Invasive Species Spread Prevention

In 2020, the lake stewards found more organisms (any organic material) on vessels leaving Schroon Lake than those entering, by nearly a 2:1 ratio. Of the total vessels inspected, only 1.4% were identified as having organic material present and only 0.20% of the vessels had AIS present.

Table 2: Schroon Lake AIS Prevention Program – Organisms Found

	Total # Visitors	Organisms Found			Total Organisms	# Boats Dirty	# Boats w/ AIS	# of Inspections	% of Inspected Boats Dirty	% of Inspected Boats w/ AIS
		Entering	Leaving	Roadside						
Horicon Decon	642	2	0	--	2	2	1	319	0.60%	0.30%
Horicon Launch	13683	0	1	--	1	1	0	6176	0.02%	0%
Town of Schroon Launch	5506	14	26	--	40	37	6	2588	1.40%	0.20%
North Schroon Decon	273	--	--	2	2	2	0	152	1.30%	0%
totals	20104	16	27	2	45	42	7	9235	0.45%	0.08%

Boats dirty = watercraft with any organic material, invasive, non-invasive or unknown

As represented in Table 3, 84% of the inspected vessels found with organisms turned out to be non-invasive. Eurasian watermilfoil (7%) and European frogbit (4%) represented the largest percentage of invasive organisms removed. The municipalities and lake associations in the Schroon Lake watershed have spent close to a decade hand-harvesting Eurasian watermilfoil and Curly-leaf pondweed (to a lesser degree) from the lake. Preventing the re-introduction of these invasive plants to Schroon Lake has proven to be one of the most important methods on controlling invasive plant growth in Schroon Lake.

Table 3: Schroon Lake AIS Prevention Program – Organisms Removed

Organisms Removed	Non-Invasive	BN*	CLP*	EF*	EWM*	VLM*	SWF*	WC*	ZM*	Total # AIS	% of Inspected Boats w/ AIS
Horicon Decon	1	0	0	0	0	0	0	0	1	1	0.30%
Horicon Launch	1	0	0	0	0	0	0	0	0	0	0%
Schroon Launch	34	0	0	2	3	0	0	1	0	6	0.20%
North Schroon Decon	2	0	0	0	0	0	0	0	0	0	0%
Total	38	0	0	2	3	0	0	1	1	7	0.08%
% of total boats	84%	0%	0%	4%	7%	0%	0%	2%	2%		

Non-invasive = native aquatic or terrestrial material; BN = Brittle naiad; CLP = Curly-leaf pondweed; EF = European frogbit; EWM = Eurasian watermilfoil; VLM = Variable-leaf milfoil; SWF = Spiny waterflea; WC = Water chestnut; ZM = Zebra mussel; */AIS = Aquatic Invasive Species

The information collected by lake stewards at the launches and decontamination stations and provided to the staff at the Adirondack Watershed Institute (AWI) allows for a more comprehensive AIS spread prevention strategy. Part of that strategy is identifying the last waterbody entered by vessels wishing to enter Schroon Lake. The information provided in Table 4 comes from interviews of boaters at the inspection stations. This table indicates the last waterbody a boater entered, as well as, the AIS present at the Schroon Lake inspection stations.



Boaters lined up for inspection at Horicon Launch (2020)

Table 4: Schroon Lake AIS Prevention Program – Aquatic Invasive Species Intercepted by Stewards

Aquatic Invasive Species Intercepted by Stewards	# found on boats launching	Previous Waterway	# found on boats retrieving	Previous Waterway
Curly-leaf pondweed	1	Unknown (1)	1	Schroon Lake (1)
Eurasian watermilfoil	2	Schroon Lake (2)	1	Schroon Lake (1)
Water chestnut	1	Unknown (1)	0	N/A
Zebra mussel	1	Saratoga River (1)	0	N/A
Totals	5		2	

Similar to the identification of previously visited waterbodies, as a means of tracing the potential source of the AIS, is collecting previous waterbody information for all visitors. As is evident from the Table 5, most of the vessels entering Schroon Lake, last entered waterbodies in upstate New York. Regional organizations like AWI and the Adirondack Park Invasive Plant Program (APIPP) have gained the trust of boaters and have had success in encouraging these individuals to prevent the spread of AIS.

Table 5: Schroon Lake AIS Prevention Program – Previous Waterways Entered by Launching Boats

Previous Waterways for Launching Boats	# visits
SAME LAKE - PREVIOUS VISIT	3856
NONE	1512
Lake George	165
NOT ASKED	144
Hudson River	79
Saratoga Lake	74
Lake Champlain	73
Great Sacandaga Lake	58
Brant Lake	48
Paradox Lake	27
Loon Lake (Warren County)	21
RENTAL	17
Ballston Lake	9
Eagle Lake (Essex County)	9
Indian Lake (Franklin County)	7
Lake Placid	7
Mohawk River	7
UNKNOWN (boater doesn't know)	7
Cossayuna Lake (Washington County)	5
Fish Creek Ponds	5
Fourth Lake	5
Indian Lake (Hamilton County)	5
Long Lake	5
Raquette Lake	5
Lake Bomoseen, Castleton, VT	4
Lake Mahopac (Putnam County)	4
Lake Ontario	4
Skaneateles Lake	4
Swinging Bridge Reservoir (Sullivan)	4
Alcove Reservoir (Albany County)	3
Canadarago Lake	3
Chateaugay Lake	3
Erie Canal	3

Previous Waterways for Launching Boats	# visits
Long Island Sound	3
Middle Saranac Lake	3
Oneida Lake	3
Putnam Pond (Essex County)	3
Round Lake (Saratoga County)	3
Seneca Lake	3
Tupper Lake	3
unspecified lake in New York	3
Atlantic Ocean	2
Blue Mountain Lake	2
Canada Lake	2
Glen Lake (Warren County)	2
Harris Lake	2
Lake Winchester, Winchester, CT	2
Lawson Lake (Albany County)	2
Lewey Lake (Hamilton County)	2
Little Clear Pond	2
Loon Lake (Franklin County)	2
Minerva Lake (Essex County)	2
Normans Kill (Albany County)	2
Otis Reservoir, Otis, MA	2
Round Lake (Essex County)	2
Saratoga River	2
Shongum Lake, Randolph, NJ	2
Upper Saranac Lake	2
Heart Lake	2
Bantam Lake, Morris, CT	1
Black Lake (St Lawrence County)	1
Black Lake (Sullivan County)	1
Blind Sodus Bay (Cayuga/Wayne)	1
Brandreth Lake (Hamilton County)	1
Canachagala Lake (Herkimer County)	1
Candlewood Lake, Brookfield, CT	1
Cassadaga Lakes (Chautauqua Cnty)	1

Previous Waterways for Launching Boats	# visits
Cayuga Lake	1
Clinton Reservoir, West Milford, NJ	1
Congamond Lakes, Southwick, MA	1
Crystal Lake (Rensselaer County)	1
Delta Lake	1
Finger Lakes (unspecified)	1
First Lake	1
Flat River Reservoir, Coventry, RI	1
Fulton Chain of Lakes (unspecified)	1
Goodnow Flowage (Essex County)	1
Greenwood Lake (Orange County)	1
Harriman Reservoir, Wilmington, VT	1
Indian Lake (Dutchess County)	1
Kinderhook Lake (Columbia County)	1
Lake Anna, Louisa, VA	1
Lake Bonaparte	1
Lake Colby	1
Lake Dunmore, Salisbury, VT	1
Lake Luzerne (Warren County)	1
Lake Pleasant	1
Lake Saint Catherine, Poultney, VT	1
Lake Sunapee, Sunapee, NH	1

Previous Waterways for Launching Boats	# visits
Lake Sunapee, Sunapee, NH	1
Lake Tiorati (Orange County)	1
Lamoille River, VT	1
Lehigh River, PA	1
Loon Lake (Franklin County)	1
Lower Saranac Lake	1
Lows Lake	1
Moreau Lake (Saratoga County)	1
Niagara River, NY	1
Onota Lake, Pittsfield, MA	1
Rondout Creek, NY	1
Sagamore Lake (Hamilton County)	1
Seneca River	1
Seventh Lake	1
Stewarts Bridge Reservoir	1
Stockbridge Bowl, Stockbridge, MA	1
Swan Lake, Hudson, NH	1
Twin Lakes, Salisbury, CT	1
unspecified lake in Massachusetts	1
White Lake (Oneida County)	1
TOTAL	6,292