

Bristol Pond and Monkton Pond Boat Launch Stewardship Summary June 19th – September 4th, 2021



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Boat Launch Steward Initiative)
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Introduction

Bristol Pond and Monkton Pond are popular destinations for anglers, recreational boaters, and wildlife enthusiasts. As of 2022, there are three known aquatic invasive species (AIS) in Bristol Pond: European Frogbit (*Hydrocharis morsus-ranae*), Eurasian Watermilfoil (*Myriophyllum spicatum*), and Brittle Naiad (*Najas minor*) (discovered by the boat launch stewards in 2021 at Bristol Pond) and there are three known AIS in Monkton Pond: Eurasian Watermilfoil, Curly-leaf Pondweed (*Potamogeton crispus*), and Banded Mystery Snails (*Viviparus georgianus*). Therefore, Bristol Pond and Monkton Pond could function as points of introduction for the spread of AIS in the Lewis Creek watershed and throughout the State. The purpose of establishing boat launch steward programs at Bristol Pond and Monkton Pond was to reduce the risk of spreading AIS from Bristol Pond and Monkton Pond to other waterbodies and to prevent the further introduction of AIS to Bristol Pond and Monkton Pond.

Lewis Creek Association (LCA) modeled its Boat Launch Steward Program after the Lake Champlain Basin Program's (LCBP) boat launch steward program and the Vermont Department of Environmental Conservation's Public Access Greeter Program. This was the third year the Boat Launch Steward Program occurred at Bristol Pond and the second year it occurred at Monkton Pond. Funding for the program was provided by the LCBP and NEIWPCC. The goal of the program was to prevent the spread of AIS by inspecting watercraft for AIS and biological materials, identifying and removing suspicious specimens, collecting data, and educating the public about AIS spread prevention.

The boat launch stewards were present at the boat launches at Bristol Pond and Monkton Pond from Friday-Sunday, typically from 7 AM until 1 PM on Fridays and from 7 AM until 2 PM on Saturdays and Sundays. The boat launch stewards were asked to record: the watercraft type, group size, the state/province of the watercraft registration, if applicable, if the visitor was launching or retrieving, the time of inspection, if the visitor had any previous contact with a boat launch steward, if the visitor accepted or refused the inspection, if the visitor took any AIS spread prevention steps, what species were found on the watercraft, the last waterbody visited in the two weeks prior to the inspection, and what waterbody the visitor would visit next. The steward also collected plants that they couldn't identify, which were then identified by the QA Project Officer. The following figures and tables are a summary of the data collected at Bristol Pond and Monkton Pond from June 19th, 2022 through September 4th, 2022.

Data Summary

Over the course of the summer, the LCA boat launch stewards interacted with 312 watercraft at Bristol Pond and 113 watercraft at Monkton Pond. At Bristol Pond 4 visitors refused to have their watercraft inspected for AIS. No visitors refused to have their watercraft inspected at Monkton Pond. 54.5% of the watercraft that the boat launch stewards interacted with at Bristol Pond were launching their boats. 57.7% of the watercraft that the boat launch stewards interacted with at Monkton Pond were launching their boats. The most interactions with visitors occurred in July (Figure 1).

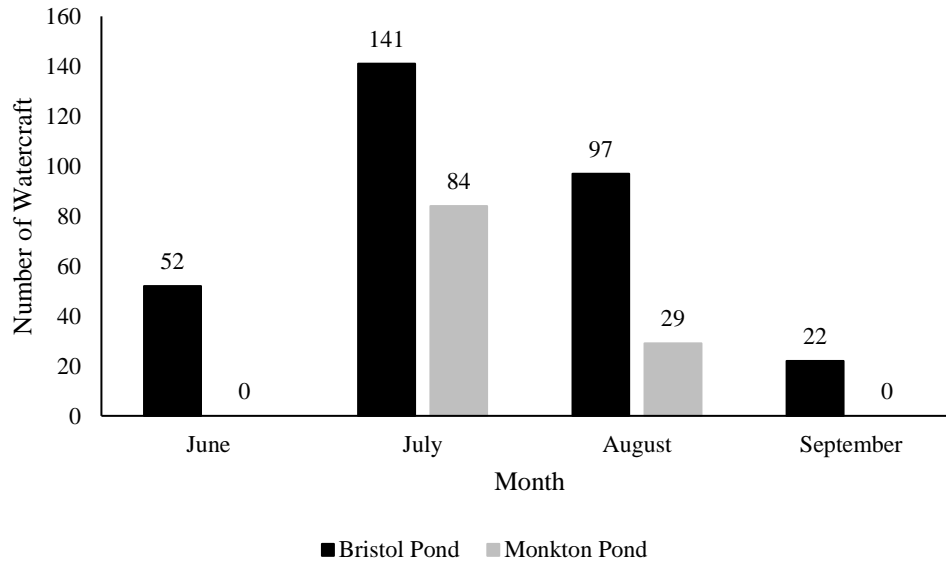


Figure 1. Number of watercrafts at Bristol Pond and Monkton Pond, Vermont by month during the summer of 2022.

LCA’s boat launch stewards were typically at the launch from 7 AM until 1 PM on Fridays, and from 7 AM until 2 PM on Saturdays and Sundays. However, these hours and days sometimes varied. LCA’s boat launch stewards interacted with most visitors between 9 AM and 1 PM at Bristol Pond and 10 AM and 1 PM at Monkton Pond (Figure 2). 65.9% of visitors that the boat launch stewards interacted with at Bristol Pond occurred between 9 AM and 1 PM, while 48.2% of visitors that the boat launch stewards interacted with at Monkton Pond occurred between 10 AM and 1 PM.

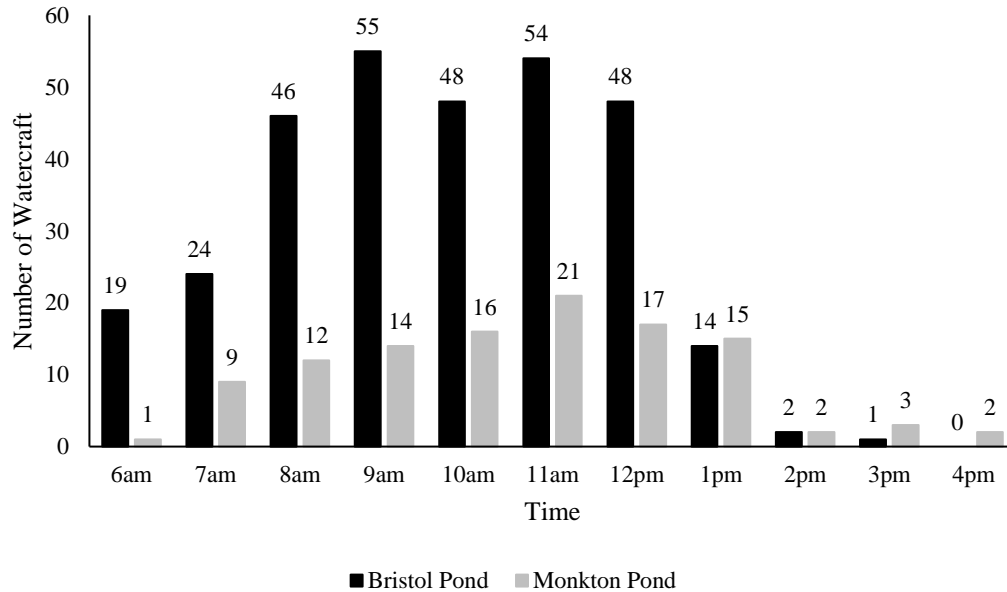


Figure 2. Number of watercrafts launching or retrieving from Bristol Pond and Monkton Pond, Vermont by time of day during the summer of 2022.

50.3% of interactions at Bristol Pond occurred on Saturdays, whereas 57.5% of interactions at Monkton Pond occurred on Sundays (Figure 3). The majority of watercraft being used at Bristol Pond and Monkton Pond were kayaks, followed by motorboats, and canoes (Figure 4). The groups size of visitors ranged from one to 4 people per group, with 2 people per group occurring most frequently at Bristol Pond and 1 person per group occurring most frequently at Monkton Pond (Figure 5). The vast majority of watercraft that were registered came from Vermont (Table 1).

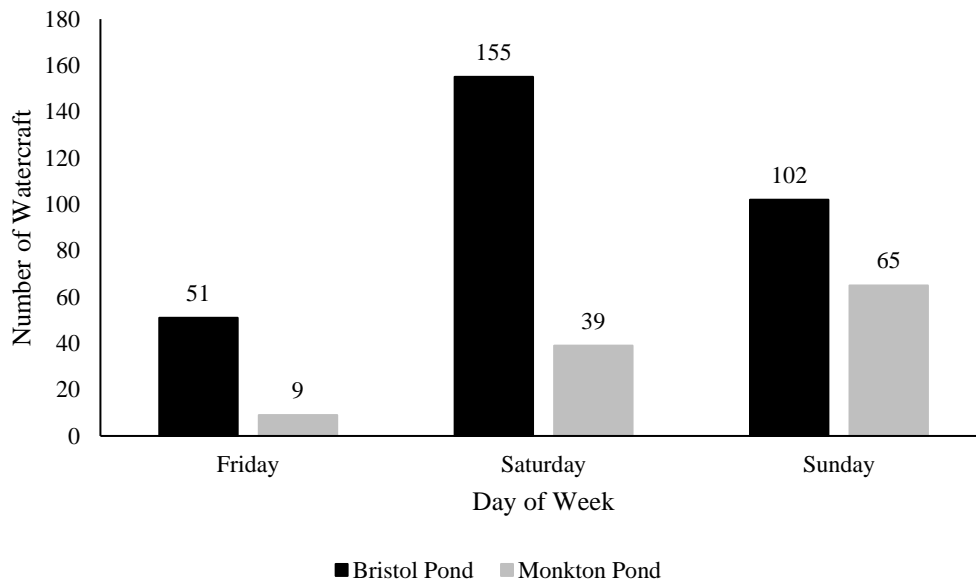


Figure 3. Number of watercrafts at Bristol Pond and Monkton Pond, Vermont by day of the week during the summer of 2022.

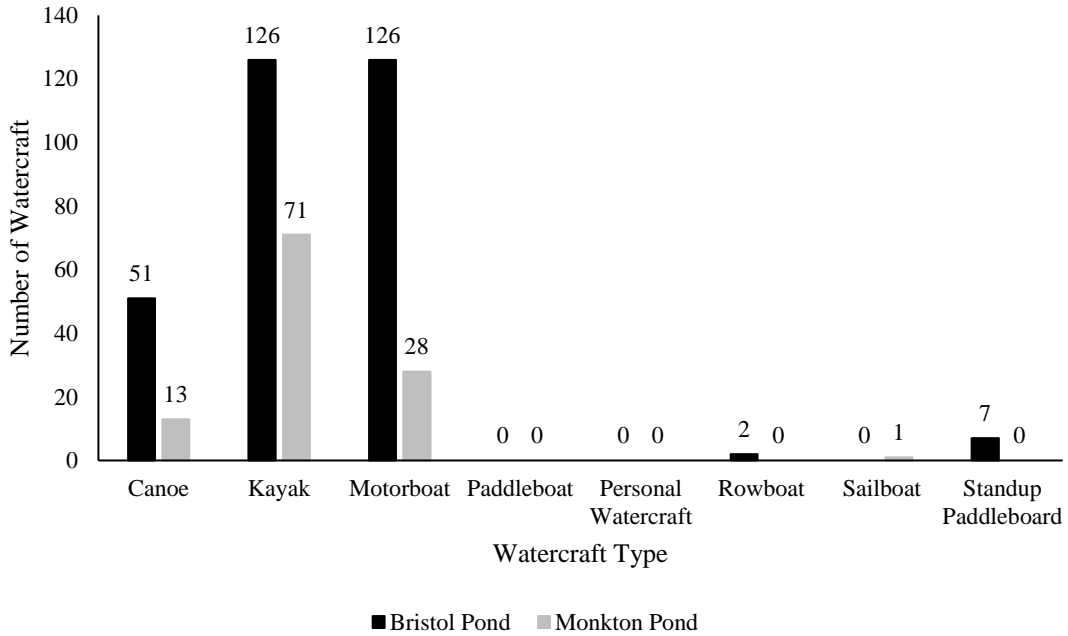


Figure 4. Number of watercrafts at Bristol Pond and Monkton Pond, Vermont by watercraft type during the summer of 2022.

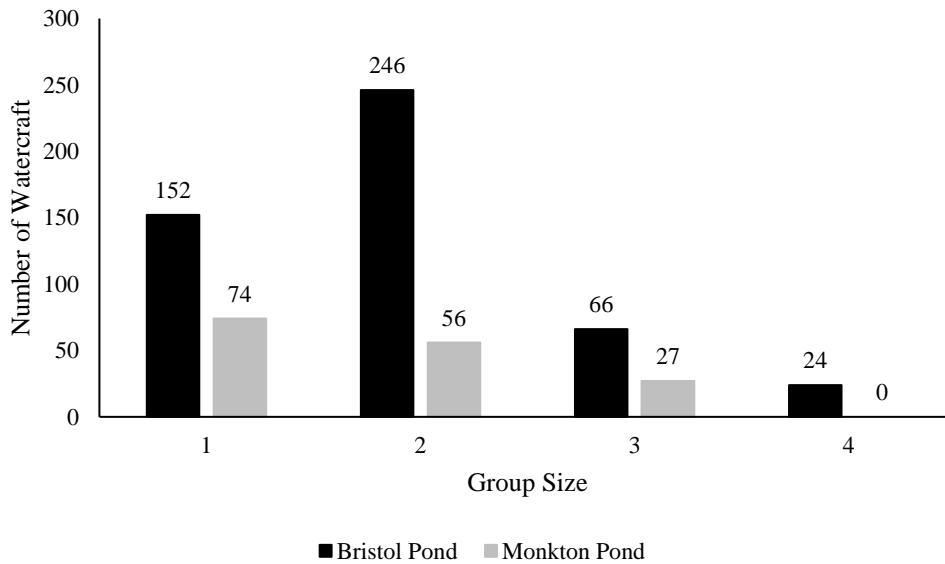


Figure 5. Number of watercrafts at Bristol Pond and Monkton Pond, Vermont by group size during the summer of 2022.

Table 1. Number of watercrafts at Bristol Pond and Monkton Pond, Vermont by state registration during the summer of 2022.

State of Registration	Bristol Pond	Monkton Pond
MS	4	0
NH	1	0
VT	122	27
WV	0	1

Most visitors have had prior contact with a boat launch steward, either from our program or elsewhere (Figure 6). The boat launch stewards asked each visitor if they took any measures to prevent the spread of AIS prior to each inspection. The boat launch stewards determined that the visitor took AIS spread prevention measures if the visitor clearly connected their actions to preventing the spread of AIS. Approximately 95.6% of visitors at Bristol Pond and 95.5% of visitors at Monkton Pond took AIS spread prevention measures before visiting the ponds (Figure 7).

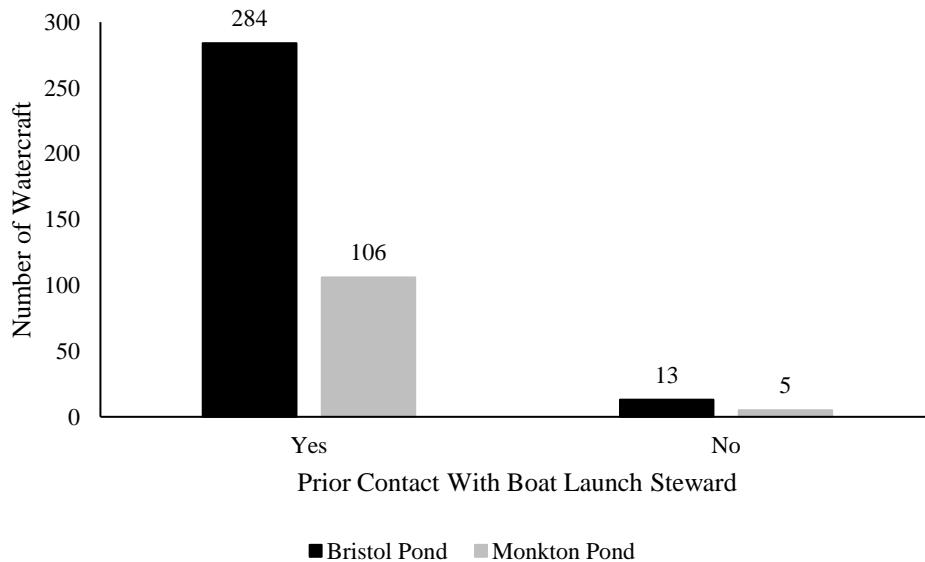


Figure 6. Number of watercraft owners who had prior contact with a boat launch steward at Bristol Pond and Monkton Pond, Vermont during the summer of 2022.

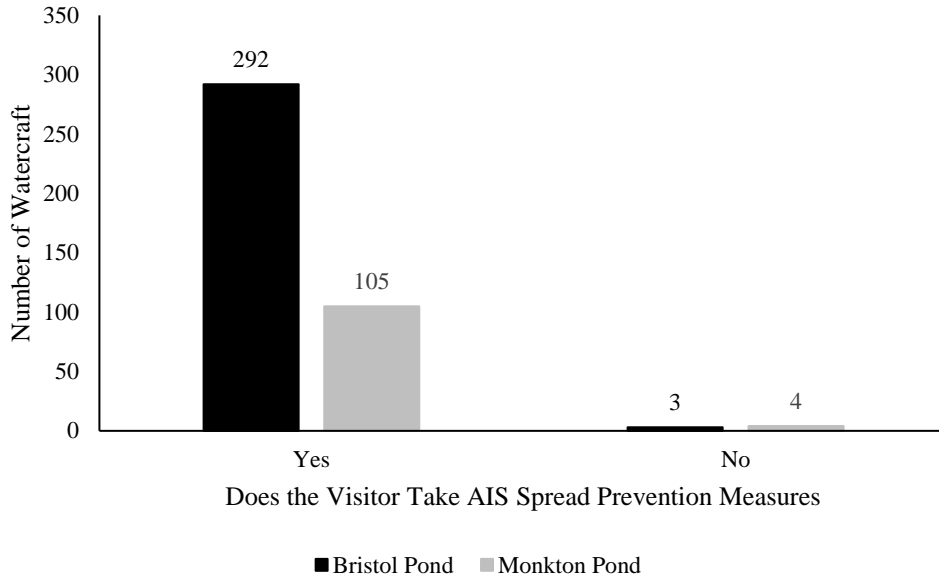


Figure 7. Number of watercraft owners who took AIS spread prevention measures before visiting Bristol Pond and Monkton Pond, Vermont during the summer of 2022.

Of the visitors who did take AIS spread prevention measures, most either washed and/or inspected their watercraft (Figure 8). If the visitor did not know how to prevent the spread of AIS, the boat launch stewards would educate the visitor on the various AIS spread prevention measures.

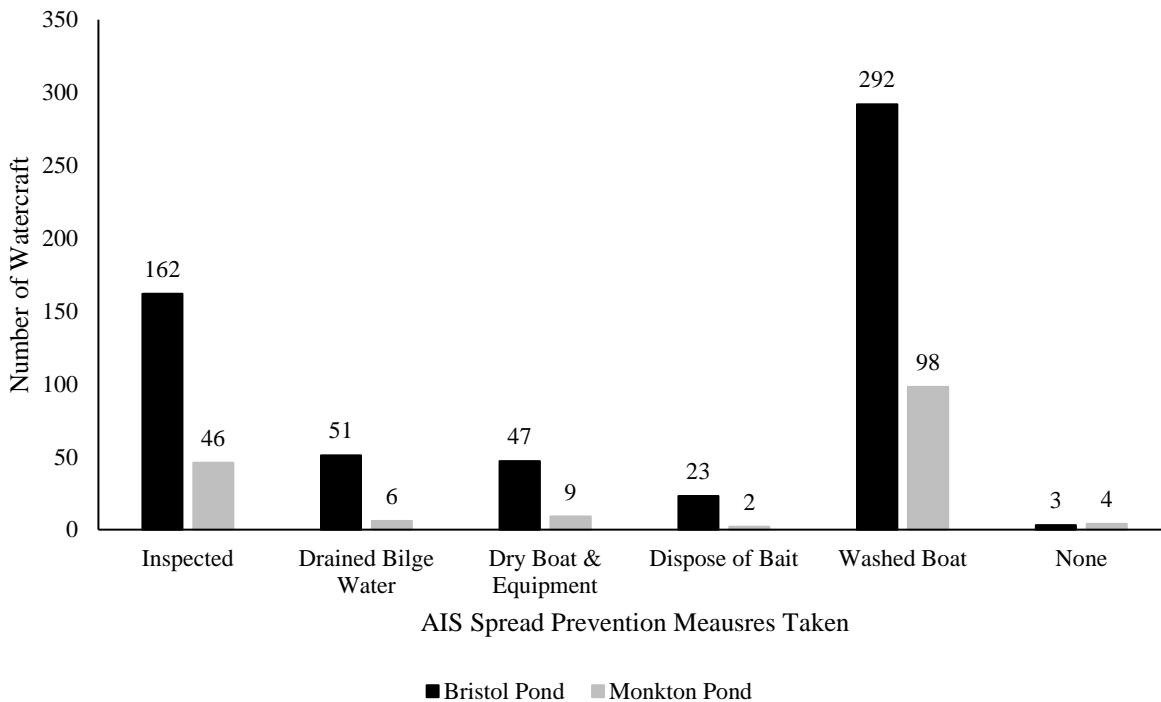


Figure 8. Spread prevention measures taken by watercraft owners at Bristol Pond and Monkton Pond, Vermont during the summer of 2021.

Most watercraft at Bristol Pond and Monkton Pond did not have any aquatic plants on them. However, more plants were found on boats retrieving from both ponds, compared to launching (Figure 9 and Figure 10). Eurasian Watermilfoil, followed by Native Pondweed and Eel Grass, respectively, were the most commonly found aquatic plants on watercraft and their trailers at Bristol Pond and Monkton Pond (Table 2). We did not notice any Brittle Naiad on any watercraft this year, however, there is still a small infestation near the dock at Bristol Pond. The boat launch stewards found most of the aquatic plants on motorboats at Bristol Pond and Monkton Pond (Table 3). 43.7% of motorboats at Bristol Pond had aquatic plants on them prior to inspection, while 39% of motorboats at Monkton Pond had aquatic plants on them prior to inspection (Table 3).

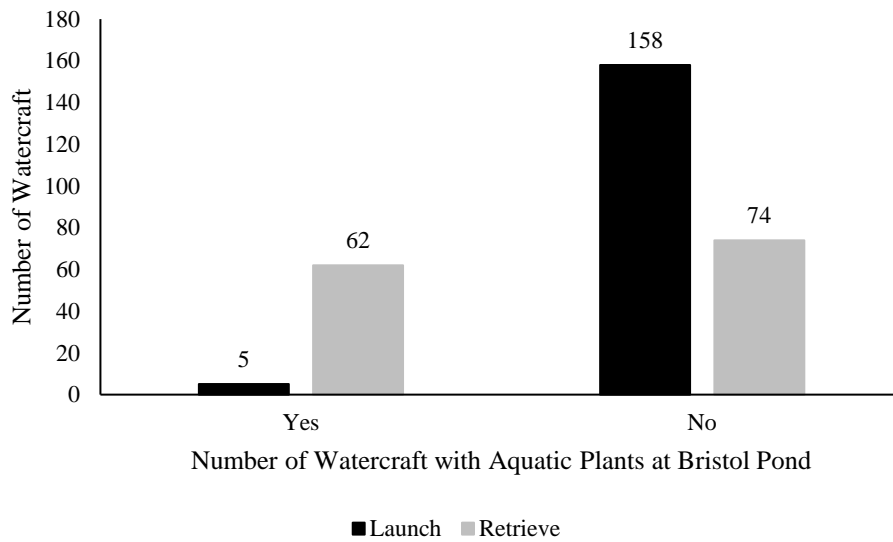


Figure 9. Number of watercrafts that had aquatic plants on them during inspections at Bristol Pond, Vermont during the summer of 2022.

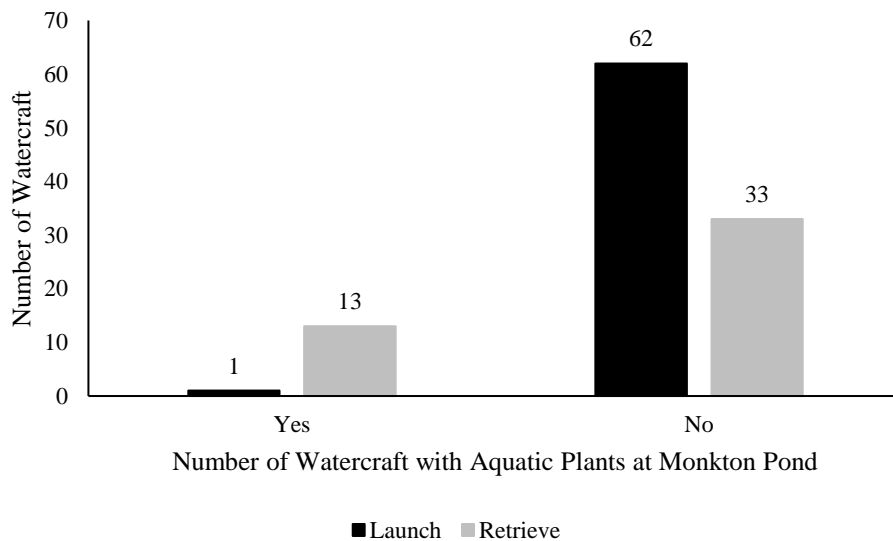


Figure 10. Number of watercrafts that had aquatic plants on them during inspections at Monkton Pond, Vermont during the summer of 2022.

Table 2. Species found on watercrafts at Bristol Pond and Monkton Pond, Vermont during the summer of 2022. * indicates aquatic invasive species.

Species Present	Bristol Pond	Monkton Pond
Eel Grass	19	6
Elodea	3	5
Eurasian Watermilfoil*	57	10
Mussels	1	0
Native Pondweed	23	7
Pond Lily	4	0
Unknown	1	1
Watershield	2	0

Table 3. Number and percentage of boats that had aquatic plants on them prior to inspection at Bristol Pond and Monkton Pond, Vermont during the summer of 2022.

Watercraft Type	Bristol Pond	Monkton Pond
Canoe	5 (9.8%)	0 (0%)
Kayak	6 (4.8%)	3 (4.3%)
Motorboat	55 (43.7%)	11 (39.3%)
Rowboat	1 (50%)	0 (0%)
Sailboat	0 (0%)	0 (0%)
Standup Paddleboard	0 (0%)	0 (0%)

Watercraft launching into Bristol Pond and Monkton Pond were known to have previously been in at least 27 different waterbodies (Table 4). 54.3% of the watercraft launching into Bristol Pond had previously been in other waterbodies, while 72.6% of watercraft launching into Monkton Pond had previously been in other waterbodies. The majority of watercraft launched into Bristol Pond and Monkton Pond came from waterbodies located in Vermont (Table 4).

Visitors retrieving their watercraft from Bristol Pond and Monkton Pond reported that they would be launching at a minimum of 18 different waterbodies (Table 5). 72.2% of the watercraft retrieving from Bristol Pond were expected to launch at another waterbody during their next outing, while 78.9% of the watercraft at Monkton Pond were expected to launch at another waterbody during their next outing. Every watercraft that we interacted with reported that they would likely launch into a Vermont waterbody during their next outing (Table 5).

Table 4. Last waterbody that watercrafts were previously retrieved from prior to launching at Bristol Pond and Monkton Pond, Vermont during the summer of 2022.

Waterbody	Bristol Pond	Monkton Pond
Alabama		
Gulf of Mexico	1	0
New Hampshire		
Connecticut River	1	0
Ontario, Canada		
Lake Ontario	0	1
Vermont		
Berlin Pond	0	1
Blueberry Lake	1	0
Bristol Pond	69	19
Chittenden Reservoir	2	0
Fern Lake	2	3
Kent Pond	1	0
Lake Arrowhead	2	0
Lake Bomoseen	1	1
Lake Champlain	26	7
Lake Dunmore	11	2
Lake Iroquois	1	4
Lake Ninevah	1	0
Lake Seymour	0	1
Lake Willoughby	0	1
Lamoille River	3	0
Lewis Creek	3	0
Molly Pond	0	1
Monkton Pond	15	17
Otter Creek	3	3
Richford Dam	1	0
Shelburne Pond	3	0
Ticklenaked Pond	0	1
Waterbury Reservoir	2	0
Winooski River	2	0

Table 5. Next waterbody that watercraft owners report they would launch after retrieving from Bristol Pond and Monkton Pond, Vermont during the summer of 2022.

Waterbody	Bristol Pond	Monkton Pond
Vermont		
Berlin Pond	3	0
Blueberry Lake	1	0
Bristol Pond	35	8
Burr Pond	2	0
Colchester Pond	1	0
Curtis Pond	2	0
Dead Creek	1	0
Emerald Lake	0	2
Lake Champlain	25	6
Lake Dunmore	8	4
Lake Eligo	2	0
Lake Iroquois	3	7
Lake St. Catherine	1	0
Monkton Pond	30	8
Otter Creek	5	0
Richford Dam	1	0
Shelburne Pond	4	3
Waterbury Reservoir	2	0

Conclusion

During the summer of 2022, LCA’s boat launch stewards interacted with 312 watercraft at Bristol Pond and 113 watercraft at Monkton Pond. Substantially more boaters took AIS spread prevention measures during the summer of 2022 compared with previous years. This is probably due to boaters being previously educated by LCA’s boat launch stewards and other boat launch stewardship programs across the State. Less aquatic plants were found on watercraft this year compared to the summer of 2021. This may have to do with the natural variation in plant growth through years and the 2021 growing season being more productive than this year’s growing season.

LCA’s boat launch steward program’s third year was successful in intercepting AIS and educating the public on the issues surrounding AIS. The vast majority of visitors to Bristol Pond and Monkton Pond seemed genuinely excited to have the program and many people from the community went to the ponds to ask LCA’s boat launch stewards AIS questions. Furthermore, visual inspections and hand removal of aquatic vegetation has been shown to be extremely effective at preventing AIS from spreading to other bodies of water. Therefore, LCA’s boat launch steward program could potentially prevent, both directly and indirectly, AIS from spreading to other uninfested waterbodies. The program was deemed successful and LCA intends on continuing the program into the summer of 2023 pending funding.

Funding Statement

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