Loon Lake AIS Survey

October 19, 2021

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Prepared for: Loon Lake

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Overview:

The purpose of this monitoring effort was to fully inspect and survey the areas of the lake that are most at risk to invasive species establishment. By carrying out these surveys the crews ensured that the waterbody is currently free of invasive species. Our crew also collected generalized data on native species presence on the waterbody. In the case that any invasive species was found our crew would have mapped out any and all invasive plant beds.

Methods

Below is a description of the survey methods used while surveying your lake. We've included a brief description of the equipment used, our cleaning procedure for all of our equipment before accessing your lake, and a description of our survey techniques.

Equipment

Equipment used while completing the Aquatic Invasive Species (AIS) survey of the lake consisted of double-sided rakes for collecting plan samples from under the water, an iPad 4 mini for data collection, a motor boat(s) or canoe(s), a Lowrance HDS 7 Live sonar unity with transducer, and Bluetooth GPS antennas (Garmin GLO) for increased accuracy of our travel path as well as any delineation of invasive plants beds (if found). All data and observations were recorded using ESRI's Collector for ArcGIS application. Surveys were attempted by motorboat(s) when possible, and when not possible, by canoe(s).

Cleaning

As our team is frequently moving from one water body to another, specific precautionary measures were taken to ensure that all equipment used was decontaminated and free of AIS. To ensure that all equipment was free of AIS, we thoroughly washed and decontaminated all of our equipment at one of the Adirondack AIS Prevention Program's free boat wash and decontamination stations. High pressure hot water was used at these sites to ensure that no AIS spread via equipment.

Monitoring Techniques

While out on the waterbody our crew focused on surveying the littoral zones around the lake for aquatic plants. The littoral zone typically encompasses the area from shoreline to a depth of about 15 feet. The team surveyed the littoral zone in a zig-zag pattern searching for plant beds employing both visual observation and regular rack tosses informed by sonar output. The sonar guidance allowed us to sample areas with plant growth more than sandy or otherwise bare areas of lake bottom. All plants retrieved by rake toss or seen by visual inspection were identified to the best of our abilities (usually to the species level, but sometimes to genus). Both native and invasive plants found are identified using the "Maine Field Guide to Invasive Aquatic Plants and their common native look-alikes" By Lake Stewards of Maine.

If an AIS infestation was discovered an occurrence point was dropped in ESRI Collector and the entire bed would have been mapped out with an assessment polygon. The occurrence point contains information such as the date, who made the observation, and the species. After the

occurrence point gets collected and assessment polygon would be mapped out by circumnavigating the exterior of the plant bed while recording our position with GPS. Based upon how much AIS was observed on the rake toss a percent cover of the invasive plant bed is assigned to each assessment polygon. As the assessment polygon and occurrence points are marked with GPS points changes in acreage, percent cover and placement in the waterbody can be tracked over time.

Invasive plant species (if found) and native species that were discovered over the course of the survey were identified, recorded and noted in the Results section of this report.

Results

Loon Lake
Survey Date: 7/9/2021
Last Surveyed: 2020
Survey Team: P. Bly, T. Firkins, M. Privee, and T. Murphy

Lake Description
Loon Lake is a 355-acre lake, located in the hamlet of Loon Lake, found 28-miles northeast of Saranac Lake. It has 8.3 miles of shoreline and is located in Franklin County and within the St Lawrence River Watershed. The team launched two motorboats from the southern end of the lake via private launch located off Blue Spruce Road. The weather was mostly sunny with some cloud cover

Aquatic Invasive Plant Presence
No invasive plants were detected.

Native Plant Biota
Comprehensive surveys of all native plants found within the lake were recorded. Native plants detected included: *Potamogeton corodata* (Pickerel weed), *Brasenia schreberi* (water shield), *Nophar advena (*Spatterdock), *Sparganuim angustifolium* (Narrow-leaf bur-reed), *Potamogeton amplifeius (*large-leaf pondweed), *Potamogeton natans (*floating-leaf pondweed), *Nymphaea alba* (White water-lily), *Zostera* (eelgrass), *Potamogeton praelongus* (white-stem pondweed)

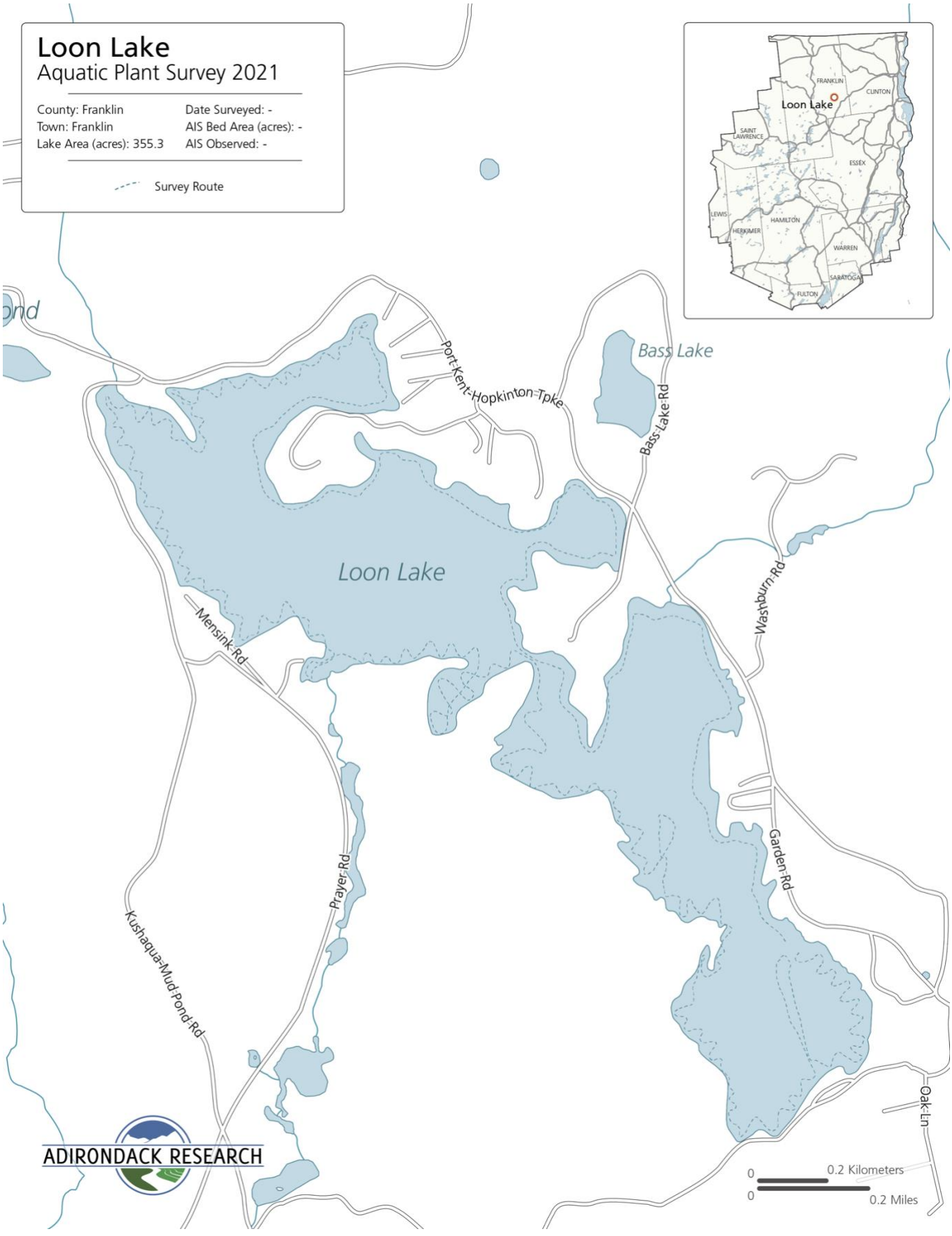
Aquatic Invasive Animal Presence
Sediment sieves were taken to determine the presence of *Corbicula fluminea* (Asian clams). None were found.

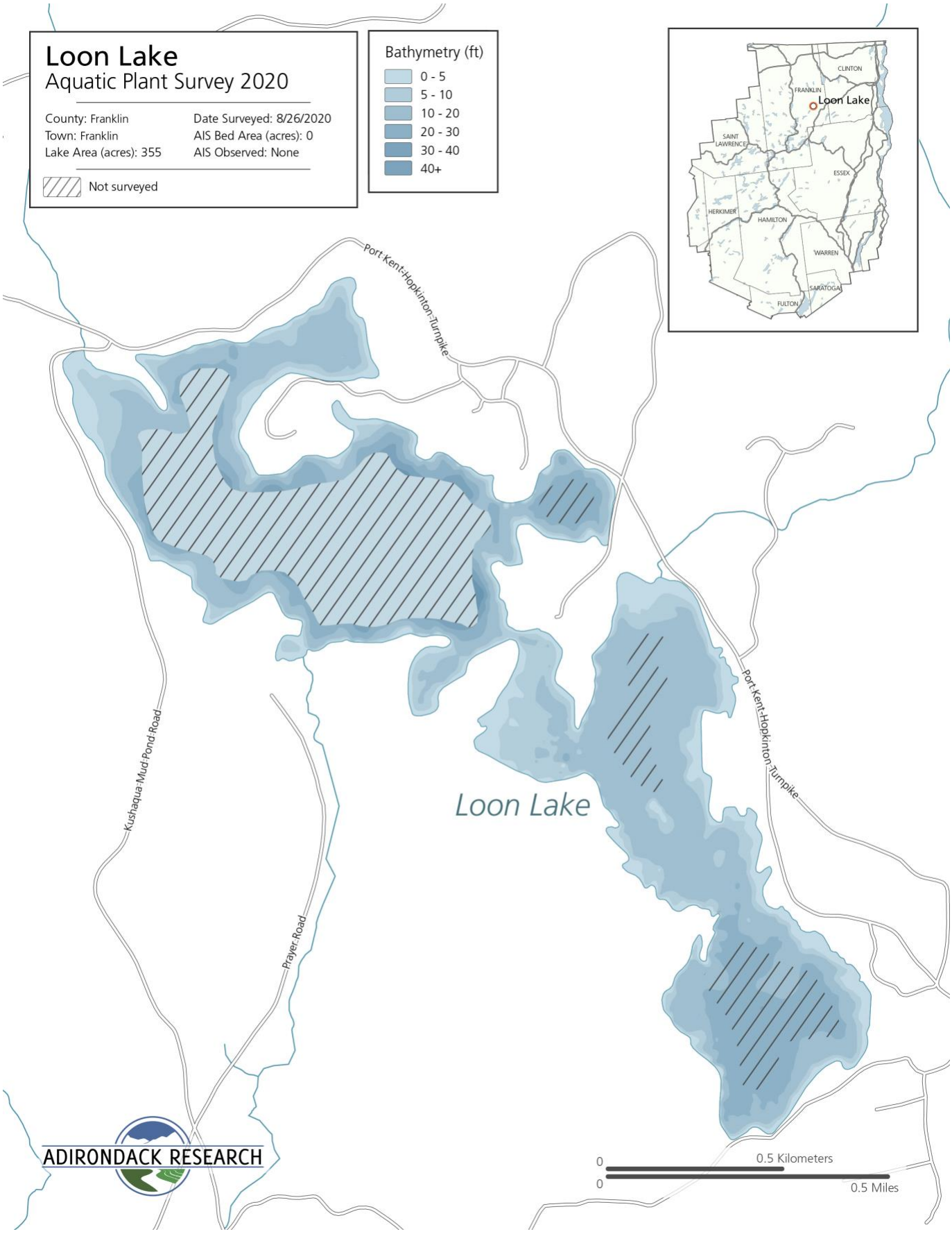
Mapping

The map included in this report has been created using publicly accessible data showing roads and lake boundary. If found, invasive plant beds are also shown on the included map. In addition to these data layers, we have included our survey path. This path was collected using our boat-mounted sonar unit. Raw sonar data files from our survey can be supplied to you if requested.

Appendix

On the page following the 2021 map is a map created by Adirondack Research for Loon Lake Association in 2020. This map shows the Bathymetry collected in 2020 and informed our search patterns used in our 2021 survey.


Loon Lake
Aquatic Plant Survey 2021
County: Franklin
Town: Franklin
Lake Area (acres): 355.3
Date Surveyed: -
AIS Bed Area (acres): -
AIS Observed: -
Survey Route
FRANKLIN
CLINTON
Loon Lake
SAINT LAWRENCE
ESSEX
LEWIS
HERKIMER
HAMILTON
WARREN
SARATOGA
FULTON
Bass Lake
Port Kent-Hopkinton Tpke
Bass Lake Rd
Loon Lake
Washburn Rd
Mensink Rd
Prayer Rd
Garden Rd
Kushaqua-Mud Pond Rd
Oak Ln
ADIRONDACK RESEARCH
0
0.2 Kilometers
0
0.2 Miles


Loon Lake
Aquatic Plant Survey 2020
County: Franklin
Town: Franklin
Lake Area (acres): 355
Date Surveyed: 8/26/2020
AIS Bed Area (acres): 0
AIS Observed: None
Not surveyed
Bathymetry (ft)
0 - 5
5 - 10
10 - 20
20 - 30
30 - 40
40+
CLINTON
FRANKLIN
Loon Lake
SAINT LAWRENCE
ESSEX
HERKIMER
HAMILTON
WARREN
SARATOGA
FULTON
Port Kent-Hopkinton Turnpike
Kushaqua-Mud Pond Road
Prayer Road
Loon Lake
Port Kent-Hopkinton Turnpike
ADIRONDACK RESEARCH
0
0.5 Kilometers
0
0.5 Miles