Pleasant Lake
Hydrilla and Invasive Plant Assessment

SLELO-PRISM Early Detection Surveillance
June 14, 2013

Report prepared by Mike McHale, 6/20/2013

Introduction and Background

Pleasant Lake, located in Jefferson County, is found three miles north of Copenhagen, New York (Figure 1). Approximately 150 acres this lake's three and a half miles of shoreline is predominantly privately owned (Figure 2). With no public boat launch, access to the lake is limited to landowners and rooftop boat launches.

Figure 1: Pleasant Lake location in Jefferson County

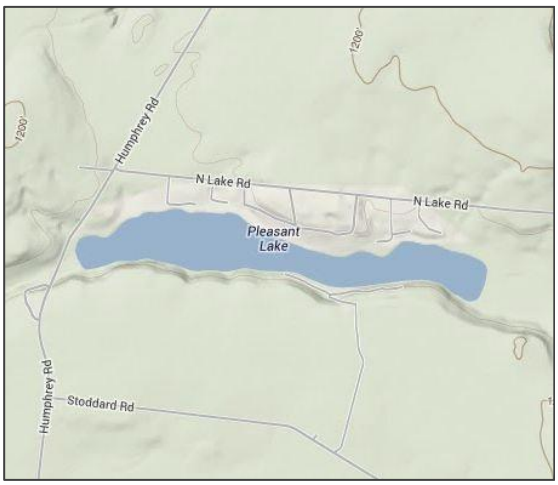

Figure 2: Pleasant Lake and surrounding roads.

At a Public Information Meeting presented by SLELO-PRISM coordinator Rob Williams, a landowner expressed concern over the possible presence of Hydrilla (*Hydrilla verticillata*). On June 14, a survey was performed along the shoreline and among private docks.

Survey Methods and Objectives

With the use of a motorboat, visual surface observations and rake tosses were performed along the shoreline. These rake tosses were targeted to examine potential surface sightings of hydrilla and other aquatic invasives on SLELO-PRISM's target management species list. Five

rake toss sites were conducted and approximately 0.9 miles of shoreline were examined from the surface (Figure 3). The areas examined ranged from private docks to undeveloped shorelines.

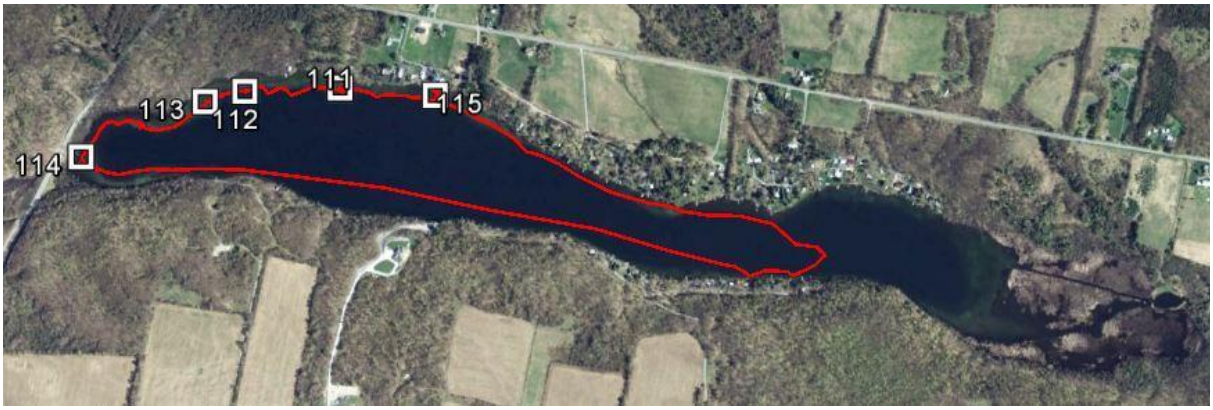

Figure 3: Pleasant Lake; Rake tosses, rout surveyed in red

Observations

Upon completion of the survey it was determined that hydrilla was not present in Pleasant Lake. The plant suspected to be hydrilla was determined to be elodea (*Elodea canadensis*) (see Figure 4). More commonly known as waterweed, elodea shares several structural characteristics with hydrilla.

Other non-native species were identified in Pleasant Lake. One species, being SLELO-PRISM target management species Eurasian water milfoil (*Myriophyllum spicatum*) was discovered in numerous patches and clumps along the shore line. Another species considered to be a noxious weed introduced from Eurasia, curly-leaf pondweed (*Potamogeton crispus*) was present.

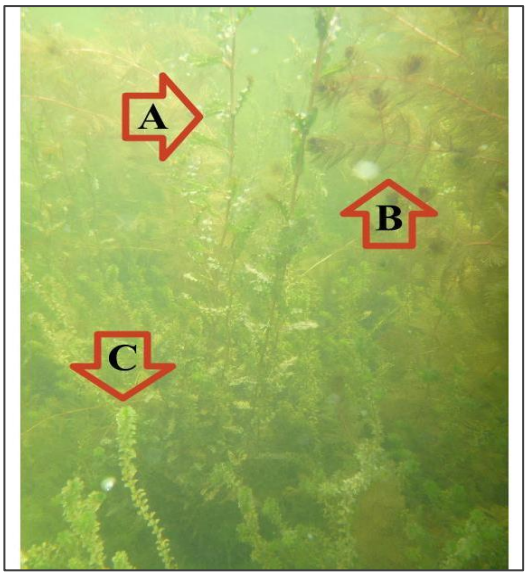

Figure 4: Underwater Photo Of; A) curly-leaf pondweed (Potamogeton crispus), B) Eurasian water milfoil (*Myriophyllum spicatum*), C) elodea (*Elodea canadensis*)

Discussion and Follow up

Both species that were discovered are commonly found macrophytes, and no additional efforts beyond future surveillance are to be taken outside of local landowners efforts. These species can grow dense mats that can out-compete native species. In heavily impacted areas, these dense populations can impact fish populations and aquatic plant communities, and can impede boating, fishing, and swimming.

With the scale and cost of treatment, it was recommended to the local landowners not to treat on a lake scale but to spot-treat around areas of

common use. Treatments recommend range from hand pulling and disposal to bottom screens or benthic barriers[1] around docks and swimming areas.

[1] Benthic barriers are submerged mats of varying composition intended to impede growth of noxious weed species (Department of Ecology State of Washington http://www.ecy.wa.gov/programs/wq/plants/management/aqua023.html)