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Botanical Surveys of Lost lake and Knops Pond

Groton, Massachusetts



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Acknowledgements

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Executive Summary

At the request of Brad Harper of The Groton Weed Harvester Committee, botanical surveys of The Lost Lake and The Knops Pond were conducted during the early summer of 2010. Those dates were as follows, July 12th, August 2nd and August 5th. Lost lake and Knops Pond are located just north of Routes 225 and 119 in Groton, Massachusetts. These bodies of water comprise some 204 acres of basically shallow waters with an average depth of around ten feet and a maximum depth of around thirty feet.

The objectives of these plant surveys was to search for the targeted species The Northern Bur-reed (*Sparganium natans*) state listed as **E=Endangered**. A careful three day search for this rare aquatic throughout Lost lake and Knops Pond including The Red Water Cove and Springy Cove yielded negative results. What was recorded however was an infestation of The Variable Water Mil-foil (*Myriophyllum heterophyllum*) and Fanwort (*Cabomba caroliniana*). Both of these highly invasive aquatics may have been instrumental in causing The Northern Bur-reed to be absent from being recorded.

Objectives

As previously mentioned the main focus of these plant surveys was to search for The Northern Bur-reed. The complete shoreline of Lost lake and Knops Pond was intensely Surveyed. Red Water Cove and Springy Cove which were mapped for no harvesting areas were completely covered with intense scrutiny. No rakes were used in these sites to collect any aquatics. If any state listed species were recorded they would be fully documented.

Methods

Utilizing a small boat and canoe the complete shoreline and the more open waters including the islands were carefully surveyed. Weather conditions were fine and little wind was encountered during the surveys. The Red water Cove and Springy Cove were Surveyed for around twelve hours total with Lost lake receiving around seven hours of survey time, the former coves containing the largest populations of The Northern Bur-reed. were intensely surveyed.

Discussion

The absence of Northern Bur-reed in Lost lake and Knops Pond may be the result of the incursion of invasive plant species such as The Variable Water-milfoil. There is planned two more years of plant surveys which may yield some records of this very rare Sparganium species. Be that as it may unless the infestation of The Variable Water Milfoil and The Fanwort are dealt with so that there is room for the return of The Northern-Bur-reed then its occurrence may be in trouble. There were areas along Lost lake where the water was clear and free of invasives perhaps if these areas remain clear the plant will reappear.

References

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Plant List Appendix A

The following list of vascular plants is taken from The Flora of Berkshire County by Pamela B. Weatherbee of Williamstown, MA.

Water Clover (*Marsilea quadrifolia*)
Yellow Pond-lily (*Nuphar variegata*)
Fragrant Water-lily (*Nymphaea odorata* var. *odorata*)
Water Lily (*N. odorata* var. *tuberosa*)
Fanwort (*Cabomba caroliniana*)
Water-pepper (*Polygonum hydropiper*)
Variable WaterMil-foil (*Myriophyllum heterophyllum*)
Eurasian –milfoil (*M. spicata*)
Purple Loosestrife (*Lythrum salicaria*)
Horned Bladderwort (*Utricularia cornuta*)
Humped Bladderwort (*U. gibba*)
Purple Bladderwort (*U. purpureum*)
Common Bladderwort (*U. vulgaris*)
Waterweed (*Elodea* spp.)
Tape-grass (*Valisneria americana*)
Crisped Pondweed (*Potamogeton crispus*)
Floating Pondweed (*P. natans*)
Robbin's Pondweed (*P. robbinsi*)
Surface Pondweed (*P. epihydrus*)
Arrow Arum (*Peltandra virginica*)
Spikesedge (*Eleocharis* spp.)
Common Cat-tail (*Typha latifolia*)