



NEWS RELEASE

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Hydro-acoustic Survey of Eurasian Watermilfoil Population to be Undertaken on Lake George

FUND for Lake George contracts for this work with the Darrin Fresh Water Institute to Use New Technology to Survey Eurasian Watermilfoil Population

Bolton Bay selected as a representative site

Lake George – The FUND for Lake George has expanded its commitment to long-term lake science on Lake George through a new contract with the RPI Darrin Fresh Water Institute in Bolton for a survey of the presence and extent of Eurasian Watermilfoil (EWM) in Bolton Bay using new hydro-acoustic technology. This effort is designed to more fully test the use of this technology to fully map areas of EWM infestation. “There has never been a full study about the extent and location of Eurasian Watermilfoil in Lake George. Milfoil has been documented in well over 160 locations, but a full survey is needed. To date it was believed such a survey would require teams of divers for a visual survey. The adaptation and refinement of the hydro-acoustic technology by the DFWI is very exciting for EWM mapping,” said Peter Bauer, Executive Director of the FUND for Lake George.

With support from the NYS Environmental Protection Fund (EPF), the Lake George Park Commission is managing a EWM control effort through hand-harvesting and use of benthic barrier on the lake bottom. The LGPC is in its third year of this program and receives \$250,000 annually. To date there has not been a systematic survey of Lake George to determine the locations of EWM in Lake George. EWM is an invasive plant that out-competes and dislodges native plants. It grows in areas of the lake that are 20 feet in depth or less. About 15% of Lake George is classified as “littoral zone;” areas of 20 feet in depth or less where aquatic plants can grow. “We need a better understanding of the full extent and location of EWM in Lake George. We need this to assist in control efforts, develop a management strategy, and assess the effectiveness of hand-harvesting. If this test is successful we plan to work to build support for the first comprehensive EWM map of Lake George,” said Peter Bauer.

“The development of hydro-acoustics as a technique to distinguish between milfoil and native

plant communities is still in its infancy” says Dr. Charles Boylen, Associate Director of the Darrin Fresh Water Institute (DFWI), who is heading the project. He is being assisted by Jeremy Farrell, a graduate student with the DFWI and Lawrence Eichler, DFWI Research Scientist. “Training the instrument to distinguish between vegetation types and extent of cover through the development of mathematical algorithms shows great promise,” said Boylen.

“Our current project with the FUND for Lake George will involve surveying a continuous stretch of shoreline between established beds in Northwest, Huddle and Sawmill Bays where we have not surveyed before. Although we would hope to find this stretch devoid of milfoil, we fear the use of hydro-acoustics will only confirm that milfoil is far more abundant in the lake than suspected. Milfoil is still the number one threat to Lake George as far as invasive non native species is concerned,” said Boylen.

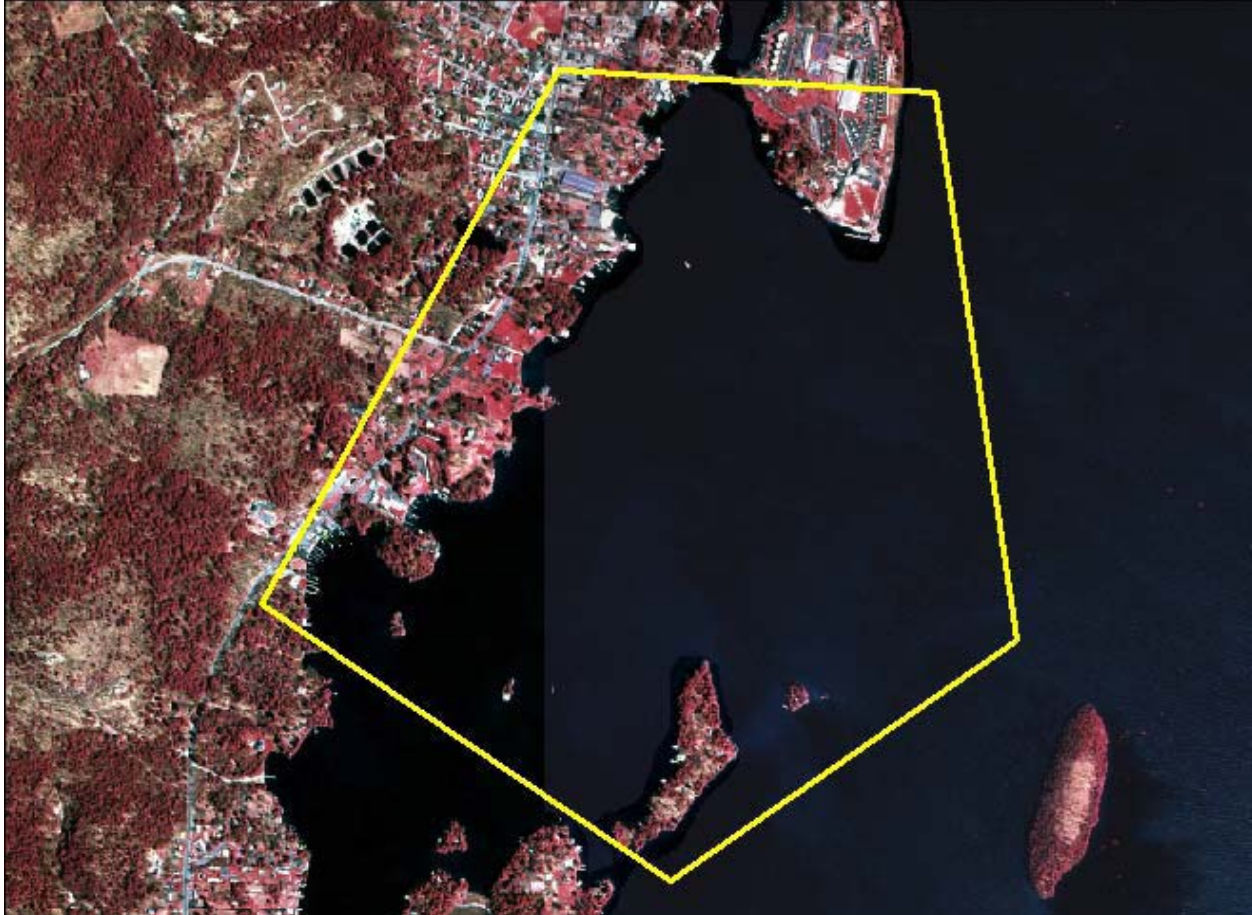
Lake George is a lake widely known for its rich diversity of aquatic plants. Over 50 aquatic plants are known to occur in the lake, including five that are classified as threatened, rare or endangered by NYS. EWM is a threat to a number of aquatic plants and is a long-term threat to the biological diversity and ecological health of Lake George.

Background on Hydro-acoustic Survey Technology

Aquatic plant mapping will be accomplished by utilizing hydro-acoustic technology to ascertain the extent of plant growth, accurately delineate percent plant cover and identify the presence, location and size of invasive EWM beds. In addition, this work will be used to refine established protocols for the identification of native aquatic macrophyte communities using hydro-acoustic methods. Surveys were completed in Harris, Warner, Sandy, Huddle, and Basin bays during the 2007 season under a grant from the Lake George Watershed Conference. For 2008, we propose to survey Bolton Bay.

Traditionally, hydro-acoustic technology has been employed for fisheries and bathymetry (depth mapping) surveys. However, recent developments in equipment and software have expanded its capability to include delineation of aquatic plant communities. Since 2005, DFWI has invested more than \$200,000 in hydro-acoustic instrumentation and personnel training in order to refine this technology to maximize its effectiveness. In 2006 and 2007, DFWI successfully applied this technology for aquatic plant mapping with a focus on EWM in Lake George.

Of the more than 160 locations around the lake where EWM has been reported, the greater Bolton area possesses several of the largest milfoil sites, including dense beds in Northwest, Huddle and Sawmill Bays. Given the large number of known milfoil sites in this region and the limited number of ongoing survey efforts, this area was chosen for assessment. See map below.



Bolton Bay, Town of Bolton

The Fund for Lake George

The Fund for Lake George is a not-for-profit, privately funded organization dedicated to the protection of Lake George. Formed in 1980, the Fund takes a science-based approach to the protection of Lake George water quality and the overall health of the Lake George watershed. The Fund pursues this mission through grants to fund long-term scientific research on the lake, launching new initiatives, advocacy for new protections, and partnerships with other organizations and local governments. The Fund is the sponsor of the Lake George Waterkeeper, among other programs on Lake George. The Fund for Lake George is managed by a Board of Trustees and maintains an office in Lake George. See www.fundforlakegeorge.org.

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