



State of New York Lake George Park Commission

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2014 Asian Clam Lake-Wide Survey: Final Report

Year 2014 marked the third year of the lake-wide survey to identify any new locations of invasive Asian clams (*Corbicula fluminea*) in Lake George. Asian clams were first discovered in Lake George in 2010, and considerable effort and cost has gone into aggressive efforts to eradicate and/or control this species.

Survey

The LGPC conducts the organization of this survey, which includes more than 50 individuals who volunteer their time towards this important project. The survey work includes sieving through the sandier areas all throughout Lake George to find any new populations of this invasive mollusk. If any clams are found which appear to possibly be Asian clam, they are brought to Darrin Freshwater Institute for confirmation.



Four boats were utilized in this year's effort (Commission Tritoon, Commission Staff Whaler, LGPC Marine Patrol, and Lake George Waterkeeper Boat). The shoreline was divided up into sections that are assigned to each boat over the period of 5-7 days, and it was the responsibility of the boat's captain each day to survey that area of shore. When a sandy area was identified, the survey crew on the boat entered the water and took several sieves depending upon the size of the site. Small sites could be as few as 20 sieves, while large delta areas as many as 500 sieves.

The 2014 survey had the benefit of 55 individuals who signed up to participate, ranging from agency and nonprofit staff, to private individuals with an interest in the lake. Thanks to Morin's Dive Shop in Glens Falls for donating the use of several wet suits for the volunteers. The survey began the day after Labor Day (September 2nd) and took five working days to complete. This year was the fastest the survey has been completed, due to a large number of volunteers and outstanding weather. The survey crews analyzed the sediments at all sites along the shoreline of Lake George which exhibit sandy conditions (Asian clam preferred habitat). More than 200 locations around the Lake George shoreline met this

standard and were addressed through this project. In all, an estimated 25,000 sediment samples were sieved to identify the presence of Asian clam.

Findings

This year's survey yielded a fairly positive outcome, in that no significant new locations of Asian clam were discovered in Lake George. The following are the key findings of this year's survey:

1. Candlelight Cottages: One Asian clam approximately 6mm in diameter was discovered at the beach at Candlelight Cottages in Northwest Bay in the Town of Bolton. Upon finding, hundreds of additional sieves were taken, yielding no new clams. This is approximately one mile north of the closest known site of Asian clams at Norowal Marina.
2. Glenburnie: One clam approximately 6mm in diameter was discovered at the launch site in Glenburnie in the Town of Putnam. This is the site of the 2013-2014 eradication project, where more than ½ acre of mats were installed to eliminate this population. More than 800 sieves combined over two separate days were taken to identify any additional clams, but none were found.
3. Million Dollar Beach: The west side of MDB in the Town of Lake George was identified as an Asian clam site in 2013, but no treatments were undertaken there. Clams were now identified in moderate abundance on the eastern portion of the beach, extending onto the East Brook delta. Sizes range from 3mm up to 8mm in diameter.
4. Blue Lagoon Resort: One Asian clam was found at this resort, which is two properties north of the closest known Asian clam site at Diamond Cove Cottages approximately 100 yards to the south.
5. Waters Edge Marina: One shell from a dead Asian clam was identified at this Marina in the Town of Bolton, which is adjacent to the Green Island Bridge. This is approximately ¼ mile south of the closest known location at Norowal Marina.
6. Existing Known Sites: While this survey was not intended to assess the existing known locations of Asian clams, several of these sites were surveyed through this project to get a general sense of current population density. In general, it has been noted that the populations of Asian clams are significantly reduced from the 2013 densities, anecdotally noted as much as 90% reduction in some areas. This has been linked to the severe previous winter that Lake George experienced. This winter die-off was validated through research that McGill University in Montreal has been conducting over the past few years. Their researchers note that more than 60 days of extreme cold water (36 degrees or less) results in mass die-off. Lake George was noted as meeting those conditions in the 2013-2014 winter.



Next Steps

While the Lake George Asian Clam Task Force has not yet met to discuss these findings and potential next steps, it is unlikely that a benthic matting treatment will be implemented in response to the current

conditions and relatively minor new findings. Given the high cost and logistical considerations for such treatments coupled with the extremely low clam densities at the new sites, it appears that the best use of funding at this time is for continued scientific study on reproduction and in-lake transport. The Darrin Freshwater Institute has several studies currently ongoing which will enlighten the future management and control efforts for Asian clam in Lake George.

This survey should continue to be conducted annually to identify new locations of Asian clams in Lake George. It is the sole method of identifying these populations in a rigorous manner, and it is conducted at no cost as a result of the generous individuals who donate their time for this effort.

The Commission would like to thank everyone who has participated in this effort, as it is critical to helping ensure effective management of this invasive species on Lake George.

Dave Wick
Executive Director

Enclosure: Location Map (courtesy of LGA)



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