



## **2022 Lake George Asian Clam Lake-Wide Survey: Final Report**

**September 19, 2022**

**Dave Wick, LGPC Executive Director**

### **Background and History**

Year 2022 marked the eleventh year of the lake-wide survey to track the internal spread of invasive Asian Clams (*Corbicula fluminea*) within Lake George. Asian clams were first discovered in Lake George in 2010 at Lake Avenue Beach in the Village by Jeremy Farrell of Darrin Freshwater Institute. It is unknown how this invasive species was introduced to Lake George. Asian clams live just below the surface of sandy areas in the lake, can reproduce exponentially and ultimately cause negative ecological and recreational impacts to a waterbody with dense populations. The Lake George Asian Clam Task Force was created in 2010 to address this emerging threat, consisting of agencies, nonprofits, and municipal leadership around the Lake George watershed.



For several years, the Task Force worked together in a concerted effort to eradicate localized populations of this invasive species by installing plastic matting and sandbags over dozens of acres of infested area to smother the clams. This technique was developed in Lake Tahoe and showed great promise on Lake George. These efforts resulted in very high mortality rates of the clams under the mats (96-100%), but over time those areas' populations rebounded. Over the course of the Task Force's seven years of focused work, almost \$2 million dollars was spent on eradication efforts and scientific research. The matting efforts were abandoned in 2016 due to high cost and the observed low success in population eradication .

The purpose of the ongoing lake-wide survey conducted by the Commission is to observe how the clam populations are spreading throughout the lake and to quantify general population densities of new and known locations. In low densities, these invasive clams seem to have no negative impact on Lake George. In much higher densities (thousands of clams per square meter), there are long-term concerns about potential water quality and beach area impacts from excessive accumulation of dead clam shells.

## **2022 Lake-Wide Survey Methods**

The LGPC organizes and conducts this annual survey with assistance from partners and volunteers. The survey work includes sieving (like panning for gold) through all sandy areas throughout the shoreline of Lake George to monitor existing populations and find any new colonized sites. A minimum of 20-30 sieves were taken at each site visited, with a maximum of 200 sieves at larger sites.

The Commission's 27' tritoon work boat was utilized in this year's effort, with the survey conducted over a period of five boat-days visiting dozens of sites around the lake (see map on page 5) . Survey sites are primarily sandy substrate, which is the clams' preferred habitat. This year's survey dates were August 22, 24, 25, 29 and September 2.



Results of each site investigated are on pages 6-7.

## **Key 2022 Findings**

1. This year's lake-wide survey identified three new discrete sites of Asian clam populations in Lake George. Two of the sites are located along the shoreline in the Town of Putnam; one in the northeast corner of Blairs Bay in Glenburnie (3087 Lake George Way), and the other is in a cove east of Brown's Point (Adirondack Camp) immediately south of Glenburnie. The other new location is in the Town of Bolton, Clay Island just north of Huddle Bay. This brings the total number of Asian clam sites to 32 separate locations throughout the lake, mostly in the southern basin on the more developed western shoreline which has many sandy areas. All known sites are summarized in a table below and identified on a map in this report.
2. Most of the known Asian clam sites visited this year showed similar densities of clams in 2021, although variations exist from year to year. Asian clam populations have been seen to have boom/bust cycles on Lake George.
3. As can be seen on the included map, the southwest shore of Lake George has a large number of adjacent sandy areas, many of which now have clams present. At this point, it is more likely than not that a sandy site on the southwest shore has Asian clams present, at varying population densities.
4. The northeast shore of Lake George remains Asian clam free, from Ticonderoga down to Shelving Rock Bay, with the exception of the three sites around Glenburnie.
5. Clams don't like people. Years of Asian clam surveys have shown that areas that are prone to regular disturbance such as beaches exhibit significantly less clams than areas that are less disturbed. This trend is demonstrated at all swimming areas that have populations of this invasive species. Where the swim lines end, the populations increase dramatically. Similarly, shallow areas with evidence of boat propeller turbulence showed little to no evidence of clam populations.

As reported last year, there still have not been any identified or reported significant recreational or environmental impacts from this invasive species in Lake George, although populations have been slowly geographically expanding throughout the lake and the future remains unclear. The concern from a

biological perspective remains that the clams most adapted to cold weather conditions are the ones surviving each year, and they are the ones who reproduce the next generation of clams which will also likely be more cold-tolerant. After several generations, it is likely that the clams in Lake George will be more cold-tolerant and more likely to survive the cold winters, thus leading to increased populations long-term. We will continue to monitor long-term trends with this invasive species.

The Commission would like to thank the volunteers and partners who participated in this year’s lake-wide survey effort:

1. Jeanine Bieber (Volunteer)
2. Anne Greene (Volunteer)
3. Kim Wick (Volunteer)
4. Blake Newman (NEIWPC)
5. Eric Reardon (NYS DEC)
6. Brian Greene (APIPP)

### Lake George Asian Clam Sites (As of September 2022) - Color by Year Discovered

	Year Found	Site Name	Town
1	2010	Lake George Village	Village LG
2	2011	Middleworth Bay	Diamond Point
3	2011	Boon Bay	Bolton
4	2011	Sawmill Bay	Bolton
5	2012	Diamond Cove resorts	Diamond Point
6	2012	Paulist Fathers	Lake George
7	2012	Shelving Rock Bay	Fort Ann
8	2012	Lake Forest Acres docks	Hague
9	2013	Glenburnie launch	Putnam
10	2013	South Basin Bay	Bolton
11	2013	Cotton Point	Bolton
12	2013	Sandy Bay	Queensbury
13	2013	Million Dollar Beach	Lake George
14	2014	Jacobi Point	Bolton
15	2015	North Basin Bay	Bolton
16	2015	Rogers Rock	Hague

17	2016	Cape Cod Village	Hague
18	2016	Edmunds Brook	Diamond Point
19	2016	Sand Pebble Cove	(Lake George)
20	2017	Braley Point	(Bolton)
21	2017	Tea Island Bay	(Lake George Village)
22	2017	Cramer Point /Green Harbor	Lake George
23	2017	Lake George Club	Diamond Point
24	2018	Hague Brook Delta	Hague
25	2019	Fort Ann Beach	Fort Ann
26	2019	Still Bay Resort	Diamond Point
27	2019	Sun Castle Resort	Lake George
28	2020	Twin Bay, Carey's Lakeside	Bolton
29	2021	182 Homer Point Road	Bolton
30	2022	NE Blairs Bay	Putnam
31	2022	Browns Point-ADK Camp	Putnam
32	2022	Clay Island	Bolton



Lake George  
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# Asian Clam Locations

Lake George, NY

*as of September 19, 2022*



## 2022 Lake George Asian Clam Survey – Sites Visited and Densities

(Yellow colored rows have Asian clam populations, white rows have no clams present, orange rows are new sites identified this year)

Sites: Clockwise from Sabbath Bay Point to Northwest Bay (Yellow are sites with Asian clams)	Clams (Y/N)	Range of clams per sieve
1. West of Sabbath Bay Pt. Beach	N	
2. Sabbath Bay Pt. Beach	N	
3. 40.313, 30.505 Small delta 20 yards south of Bass Bay	N	
4. Silver Bay YMCA	N	
5. Arcady Bay	N	
6. Biggest boathouse on lake	N	
7. Cape Cod Village	Y	1-10
8. David Darrin property	Y	1-3
9. Lake Forrest Acres	Y	1-2
10. Hague Motel	Y	5-15
11. Hague Beach	Y	0-5
12. Hague Brook Delta	Y	2-20
13. Trout House Village	Y	5-10
14. Forest Bay	N	
15. Rogers Rock	Y	0-5
16. LG Steamboat	N	
17. Ticonderoga Beach	N	
18. Blair's Bay north private beach – 3087 Lake George Way (new site 2022)	Y	0-1
19. N. of Glenburnie Fire Launch private beach	N	
20. Glen Burnie Fire Launch	Y	15-20
21. Browns Point – ADK Camp (new site 2022)	Y	0-2
22. Gull Bay Beach	N	
23. Agnes Island-residence by beach	N	
24. Washington Co. Beach	N	
25. Huletts Landing Marina	N	
26. Hulett's Community Beach	N	
27. Shelving Rock Bay	Y	1-5
28. Fort Ann Beach	Y	10-15
29. Sandy Bay	Y	0-25
30. Paulist Fathers	Y	10-20
31. Sand Pebble Cove	Y	1-30
32. Million Dollar Beach	Y	0-3
33. Dog Beach	Y	5-10
34. English Brook Delta	Y	0-20
35. Tea Island Bay	Y	1-5
36. Sun Castle	Y	0-1
37. Still Bay/Green Harbour	Y	1-3
38. Diamond Cove	Y	1-10
39. Edmunds Brook	Y	2-5
40. Little Harbor/Beckley's	Y	10-15
41. LG Club	Y	3-5
42. Beach in N Boon Bay	Y	8-15

43. Hemlock Pt in Boon Bay	Y	5-7
44. S Beach area of Cotton Pt	Y	30-40
45. Road to Cotton Pt.	Y	1-15
46. Porters Cottages	N	
47. Blue Water Manor	Y	1-5
48. W. Fish Point(Basin Bay)	Y	2-3
49. Homer Point(Rd)	Y	0-1
50. Clay Island (new site 2022)	Y	tbd
51. Huddle Bay Beach	N	
52. Sweetbriar Island	N	
53. Carey's Lakeside Lane	Y	8-10
54. S. Anchorage Rd	N	
55. Rogers Park	Y	3-5
56. The Chateau on the Lake	N	
57. Finkle Brook Delta	Y	1-5
58. 4 Braley Pt, Bolton, Private residence(171.8-1-18)	Y	1-5
59. Candlelight Cottages	Y	0-10
60. Pioneer Village	N	
61. Timberlane	N	
62. North side of Indian Brook Delta	Y	0-20
63. Lagoon Manor	Y	5-25
64. Bay at Walker Point, NW Bay-5730 Lake Shore Dr(141.00-1-16)	N	
65. 2 Walker Pt Lane(141.00-1-15)	N	