

White Lake Gill Net Survey (Survey #:319018)
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White Lake is a 283-acre lake located in the Town of Bethel, Sullivan County, NY. The lake has a drainage area of 1.55 square miles and is comprised of two basins with maximum depths of approximately 90 feet. Public access for launching of motorboats is provided by a NYSDEC boat launch located off NY 55 on the east side of the lake. Primary sportfish include largemouth bass and smallmouth bass. Walleye have been stocked semi-regularly through private stockings. Additionally, lake trout and brown trout are stocked on a yearly basis by the NYSDEC. Common panfish include brown bullhead, pumpkinseed and redbreast sunfish. Special fishing regulations exist for lake trout: open all year, 15-inch minimum length and a daily limit of three, and brown trout: open all year, any size and a daily limit of five. Additionally, ice fishing is permitted, and there is no motor restriction on the lake. White Lake is popular with boaters and can be quite busy during summer months. The purpose of this survey was to determine if trout survive summer conditions in this lake. Anecdotal reports indicate fishing for brown trout and lake trout has been poor in White Lake. During the summer of 2018, a gill net survey was conducted to assess trout abundance. However, only one lake trout and no brown trout were caught at that time. After the 2018 netting survey, it was determined a second gill net survey should be conducted in 2019 to sample deeper/colder water in which lake trout could be utilizing.

On 9/16/19, gill nets were set at four locations throughout the lake and were retrieved the following day. Nets were set overnight and had soak times between 19.75 and 21.75 hours. The gill nets used were 90 ft by 10 ft, with three panels of two-inch, three-inch and four-inch monofilament mesh. Two nets were suspended in 20 - 30 feet of water, one net was suspended in 30 – 40 feet of water, and the last net was fished on the bottom in 50 – 55 feet of water. Temperature and dissolved oxygen (DO) measurements were taken from the surface to the bottom of the lake.

A total of four game fish were caught during this survey including one lake trout, one largemouth bass, two chain pickerel, and ten walleye. Walleye lengths ranged from 10.5 to 24.8 inches. These fish appeared to be in good condition with weights ranging from 0.6 – 6.2 pounds. Walleye appear to be surviving well in White Lake with large size fish caught. Their continued stocking is recommended at this time. Only one lake trout was caught and was 10.8 inches long. No other trout were caught during this survey. The temperature and DO was suitable for brown trout (DO: >5 ppm, temperature: <70 degrees) between the surface and 22 feet of water (Table 1). DO was limiting (<5 ppm) below 22 feet of water. Additionally, lake trout prefer water temperature of less than 55 degrees (Smith C.L. 1985), which was found around 25 feet and below with limiting DO of around 4 ppm or less.

Results from this gill net survey and the 2018 gill net survey indicate minimal trout survival occurs during the summer here. It's recommended that both the lake trout and brown trout stocking policy be cancelled here. Additionally, a walleye stocking policy should be implemented, as decent catch rates of walleye have been documented during the last two years from private stockings.



Table 1: Depth, temperature and dissolved oxygen readings recorded on 9/16/19 prior to setting gill nets. Depths and readings where nets were set are highlighted in blue.

Depth	Water Temp (F)	DO (ppm)		Depth (cont)	Water Temp	DO
0	69.3	9.2		28	50.6	3.2
2	69.3	9.3		30	48.3	3.0
4	69.3	9.3		32	46.9	2.9
6	69.2	9.3		34	45.3	2.2
8	69.1	9.3		36	44.4	1.6
10	69.1	9.3		38	43.9	1.5
12	69.0	9.3		40	43.7	1.5
14	68.7	9.2		45	43.2	1.8
16	68.6	9.0		50	43.0	1.7
18	68.4	8.9		55	42.7	1.8
20	67.8	8.6		60	42.6	0.9
22	62.7	5.7		65	42.4	0.4
24	56.8	4.7		70	42.3	0.2
26	52.6	3.8				

Smith, C.L. 1985. The Inland Fishes of New York State. NYS DEC. Albany, NY