

LAKE MANAGEMENT STATUS REPORT

Date of Report: 6/28/2024 **Fisheries Manager:** Rob Hilsabeck
District No.: 4 **LAKE NAME:** Gladstone Lake **County:** Henderson
Water No.: 0032 **Ownership:** State **Acreage:** 32

<u>D.F.M.</u>	<u>Date</u>	<u>R.F.M.</u>	<u>Date</u>
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1. All Fish - 2 pole and line fishing only.

Muskie:

- 48 inch minimum and 1 fish per day harvest limit.

Largemouth or Smallmouth Bass:

-1 fish greater than or equal to 15 inches and/or 2 fish less than 12 inches. 3 fish daily harvest limit.

Bluegill or Redear Sunfish:

- 10 fish daily harvest limit.

Channel or Blue Catfish:

- 6 Fish daily harvest limit.

2.

Little Grassy Hatchery stocked 700 channel catfish at 8 inches on 8/1/2023.

IDNR Fisheries completed an electrofishing survey on 6/2/2023.

IDNR Fisheries treated submerged rooted aquatic plants on 6/2/2023 with 15 gallons of Aquathol K herbicide.

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		<u>Complete Rehab</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	2023	LMP
Largemouth Bass											Objectives
Stock #			56	150	59	48	24	10	6	52	
PSD			0	15	2	25	8	70	0	12	40-60
RSD14			0	0	0	0	0	10	0	4	
RSD15			0	0	0	0	0	0	0	4	
RSD16			0	0	0	0	0	0	0	4	
RSD18			0	0	0	0	0	0	0	1	5-10
Wr			105	92	86	86	86	87	93	90	90-110
YAR			0	1.0	49.0	5.2	16	6.1	6	.3	
CPUE (f/min)			2.0	4.3	1.5	.8	.6	1.6	.2	2.1	1/min
EFFORT			28	35	40	57	40	33	30	25	
Bluegill											
Stock #			14	44	28	19	25	19	135	35	
PSD			100	2	14	5	0	0	2	54	20-40
RSD7			0	0	7	5	0	0	0	34	
RSD8			0	0	0	0	0	0	0	0	1-5
Wr			119	95	85	77	85	81	79	93	90-110
CPUE (f/min)			.5	1.3	.7	.3	.6	3.5	4.5	1.4	
Redear Sunfish											
Stock#			32	74	13	12	5	12	7	19	
PSD			78	30	54	8	60	8	0	74	30-50
RSD9			0	0	0	0	0	0	0	0	
Wr			107	99	86	83	91	94	86	89	90-100
CPUE (f/min)			1.1	2.1	.3	.2	.1	.4	.2	.8	
Black Crappie											
Stock#			6	2	0	1	0	0	1	16	30-50
PSD			0	0	0	0			0	75	
RSD9			0	0	0	0			0	6	
RSD10			0	0	0	0			0	0	20-40
RSD11			0	0	0	0			0	0	5-10
Wr			114	96	0	92			90	91	90-100

CPUE (f/min)		.20	.06	0	.02			.03	.6	
		2013	2014	2015	2016	2017	2018	2019	2023	
Channel Catfish										
Stock#		0	3	0	0	1	4	3	2	
PSD			33			100	100	67	100	40-60
RSD18			0			0	50	33	100	10-20
Wr			89			77	84	89	93	90-100
CPUE (f/min)			.09			.03	.12	.10	.08	

4. In the fall of 2012, Gladstone Lake underwent a complete fish rehabilitation by IDNR Fisheries. Restocking was completed in 2013 with fingerling fish from Jake Wolf Fish Hatchery.

In 2023, a late spring D.C. electrofishing survey was used to evaluate the fish population. The largemouth bass population was evaluated by 52 stock size bass from electrofishing.

The largemouth bass population appears to be defined by a high percentage of fish from 3 to 14 inches in length with good average Relative weights. The bass population appears to have a high density of fish competing for space and food. A very large year class was produced in the spring of 2014, 2015, 2017, 2018 and 2019.

The current bass regulation will remain in place for 2024. Anglers can and hopefully will harvest some of the bass under 12 inches in length.

The bluegill population was sampled by 35 stock size fish in the electrofishing survey. The current bluegill population is rated as average with the larger fish up to 7.5 inches in length. This population is of high density and in good body condition with a Wr average of 93 for stock size fish.

The redear sunfish population was sampled by 19 fish in the electrofishing survey. The current redear population is rated as average with the larger fish up to 8.0 inches in length. This population is of moderate density and in average body condition with a Wr average of 89 for stock size fish.

The current bluegill and redear sunfish harvest limit is 10 fish daily per angler.

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In 2023, the black crappie population was sampled by 16 fish from 7.6 to 9.3 inches in length. A low density black crappie population is present at this time. No harvest or length limit is necessary currently for the crappie population.

The channel catfish population was sampled by 2 fish from 18 to 18.5 inches in length. Little Grassy hatchery stocked 700 fish at 8 inches in length 2023. An annual stocking of 700 non-vulnerable channel catfish is scheduled for the future.

No muskie were sampled in the 2023 electrofishing survey. 2 female muskie at 33 inches in length were stocked into Gladstone Lake in the spring of 2016 by IDNR Fisheries, 10 fish at 12.5 inches in 2018, and 10 fish at 13.5 inches in 2019. A low density muskie population will be the goal for Gladstone Lake. A total density of less than 10 fish per year will be stocked over the next five years. In 2017 the muskie harvest regulation was established at a 48 inch minimum and 1 fish per day harvest limit for Gladstone Lake.

Recommended Lake Management Activities with Rationale for Implementation:

Supplemental stocking is required for the following species due to no natural recruitment currently occurring in Gladstone Lake.

Channel Catfish: 800 every year at 8 inches which is 25/acre.

Biological Surveys - Conduct annual surveys to measure trends in fishery population dynamics, angling regulations, and progress toward management goals. In the fall, utilize D.C. electrofishing to sample a target number of at least 100 stock-size largemouth bass, black crappie, bluegill, redear and channel catfish populations.

Aquatic Vegetation Control - IDNR Fisheries will apply aquatic herbicides as needed to manage exotic or nuisance aquatic plants for fishing access or sport fish management.

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Lake Access - Coordinate with the site staff on the development of shoreline fishing areas and the regulation signage.

Site Map - update the site map of the water bodies as needed.