

LAKE MANAGEMENT STATUS REPORT

Date of Report: 6/28/2024 Fisheries Manager: Rob Hilsabeck
District No.: 4 LAKE NAME: Big Buffalo Lake SDHSFWA
County: Knox Water No.: 4130 Ownership: State Acreage: 21

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

Large or Smallmouth Bass:

- Protected Slot Length Limit from 14 to 18 inches with 3 fish daily harvest limit.

Bluegill or Redear Sunfish:

- 25 fish Daily Harvest Limit.

White, Black, or Hybrid Crappie:

- 25 Fish Daily Harvest Limit with no more than 10 fish greater than or equal to 10 inches.

Pure Muskellunge:

- Harvestable slot from 36 to 42 inches, and 48 inch minimum length limit with 1 fish daily harvest limit.

Channel Catfish:

- 6 fish daily harvest limit.

Walleye, Sauger, or Hybrid Walleye:

- 3 fish daily harvest limit.

Recreational Use Restrictions:

- Upland Hunting Area (all use other than upland hunting prohibited during the north zone upland hunting season) All live bait greater than 8 inches must be rigged with a quick set rig.

2.

IDNR Fisheries completed an electrofishing survey on 8/28/2023.

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3. Lake Management Plan Progress Table:					
	<u>2017</u>	<u>2018</u>	<u>2020</u>	<u>2023</u>	LMP
Largemouth Bass					Objectives
Stock #	54	67	35	60	
PSD	43	22	17	45	40-60
RSD14	13	5	0	13	
RSD16	4	3	0	8	
RSD18	0	0	0	5	5-10
Wr	89	85	89	94	90-110
YAR	.8	.6	3.8	1.0	
CPUE (f/min)	2.7	2.2	1.3	1.2	1/min
EFFORT	20	30	28	50	
Bluegill					
Stock #	75	88	57	67	
PSD	43	38	30	31	20-40
RSD7	20	6	16	6	
RSD8	7	0	0	0	1-5
Wr	97	86	94	95	90-110
CPUE (f/min)	3.8	2.9	2.0	1.3	
Redear Sunfish					
Stock#	5	2	1	7	
PSD	100	100	0	86	30-50
RSD9	20	100	0	0	
Wr	117	102	114	93	90-100
CPUE (f/min)	.3	.07	.04	.14	

4. In 2023, a late summer D.C. electrofishing survey was used to evaluate the fish population. The largemouth bass population was evaluated by 60 stock size bass from electrofishing.

The largemouth bass population appears to be defined by a high percentage of fish from 3 to 16 inches in length. The average relative weight was 94. In 2017, the bass regulation for Snakeden Hollow SFWA waters were changed from a 3 fish daily harvest limit with only 1 fish greater than or equal to 15 inches, to a protected slot length limit from 14 to 18 inches with 3 fish daily harvest limit. The goal of the new bass regulation is to increase the density of the bass population from 14 to 18 inches.

This increased bass density should help create a population that is composed of fish large enough to be efficient predators upon the panfish population. The benefit to bass anglers will be more fish surviving past 15 inches to catch, and for the anglers wanting to harvest bass will be the opportunity to still harvest fish under 14 inches.

The bluegill population was sampled by 67 fish in the electrofishing survey. The current bluegill population is rated as good with the larger fish up to 8.0 inches in length. This population is of high density and in good body condition with a Wr average of 95.

The redear sunfish population was sampled by 7 fish in the electrofishing survey. The current redear population is rated as good with the larger fish up to 9 inches in length. This population is of low density and in good body condition with a Wr average of 93.

In 2017, the bluegill and redear sunfish regulation was changed from a 10 fish daily harvest limit to a 25 fish daily harvest limit. This change will allow anglers the ability to harvest more bluegill and redear sunfish per daily visit to Snakeden Hollow SFWA waters.

Recommended Lake Management Activities with Rationale for Implementation:

Biological Surveys - Conduct occasional surveys to measure trends in fishery population dynamics, angling regulations and progress toward management goals. Utilize D.C. electrofishing to sample a target number of at least 50 stock-size largemouth bass, bluegill and redear sunfish.

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

Lake Access - Coordinate with the site staff on the development of shoreline fishing areas and that new regulation signs are posted. Investigate the potential for a primitive boat ramp.

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