

"Finding Nemo": Minnesota DNR targeted survey of shallow water fisheries 2017

(See accompanying article in Spring 2019 *Big Sugar Bush Notes*).

The table below shows the results of the targeted survey for shallow water fish species (**highlighted**) that are intolerant to habitat disturbance along with other species

species intolerant to habitat disturbance.

Table 1. Targeted Shallow Water Fish Survey Results*

	Gear	CPUE*	Normal Range	Avg Weight	Normal Range	Count
banded killifish	50-ft beach seine	30.00	N/A	0.00	N/A	90
banded killifish	Backpack electrofishing	5.80	N/A	0.00	N/A	8
banded killifish	15-ft beach seine	1.60	N/A	0.00	N/A	8
blackchin shiner	50-ft beach seine	4.67	N/A	0.00	N/A	14
blackchin shiner	15-ft beach seine	0.60	N/A	0.00	N/A	3
bluegill	Backpack electrofishing	0.72	N/A	0.00	N/A	1
bluegill	15-ft beach seine	1.20	N/A	0.00	N/A	6
central mudminnow	Backpack electrofishing	0.72	N/A	0.00	N/A	1
green sunfish	Backpack electrofishing	41.30	N/A	0.00	N/A	57
lowa darter	15-ft beach seine	0.80	N/A	0.00	N/A	4
lowa darter	50-ft beach seine	3.00	N/A	0.00	N/A	9

Table 1. Targeted Shallow Water Fish Survey Results*

	Gear	CPUE*	norma l Range	Avg Weigh t	norma l Range	Coun t
lowa darter	Backpack electrofishing	19.57	N/A	0.00	N/A	27
largemouth bass	Backpack electrofishing	15.94	N/A	0.00	N/A	22
largemouth bass	15-ft beach seine	6.00	N/A	0.00	N/A	30
largemouth bass	50-ft beach seine	7.00	N/A	0.00	N/A	21
northern pike	50-ft beach seine	0.33	N/A	0.00	N/A	1
northern pike	15-ft beach seine	0.20	N/A	0.00	N/A	1
northern redbelly dace	50-ft beach seine	0.33	N/A	0.00	N/A	1
spottail shiner	50-ft beach seine	0.33	N/A	0.00	N/A	1
spottail shiner	Backpack electrofishing	2.90	N/A	0.00	N/A	4
tadpole madtom	Backpack electrofishing	1.45	N/A	0.00	N/A	2
yellow bullhead	Backpack electrofishing	0.72	N/A	0.00	N/A	1
yellow perch	Backpack electrofishing	0.72	N/A	0.00	N/A	1
yellow perch	15-ft beach seine	2.80	N/A	0.00	N/A	14

Table 1. Targeted Shallow Water Fish Survey Results*

	Gear	CPUE*	norma l Range	Avg Weigh t	norma l Range	Coun t
yellow perch	50-ft beach seine	32.67	N/A	0.00	N/A	98

* Data from this targeted nearshore survey is combined with data from a standard gill and trap netting survey in June 2017 to calculate a Fish-based Index of Biologic Integrity (FIBI) score that describes the overall health of the lake. The FIBI uses fish community data to measure a lake's health, and the types of fish species present can help identify any stressors that may be negatively affecting the lake environment. The FIBI score, composed of several fish community diversity and composition metrics, indicates the overall health of a lake by comparing it to what is expected for a healthy lake. The FIBI score for Big Sugar Bush Lake based on this survey is above the impairment threshold for aquatic life use determined for similar lakes (1) at this time.

(1) Retrieved from Minnesota DNR website:

<https://www.dnr.state.mn.us/lakefind/showreport.html?downum=03030400>