

Busse Reservoir – South Lateral Pool Population Survey



Located in Elk Grove Village south of Higgins Rd. between RT 53/I-290 and Arlington Heights Rd. Busse Reservoir is comprised of three pools making up a total of 457-acres of water. The South Pool at 19.1 feet is the deepest and is 115 acres. Walleye, Northern Pike, Largemouth Bass, and Channel Catfish are the top predators at Busse. Bluegill, sunfish, bullheads, Yellow Bass, Yellow Perch, and crappie can be found in all three pools. Boat ramps are located on the Main and South Pools. For acceptable watercraft and general boating regulations see the District's Fishing Guide. A boat rental with concessions and bait is located on the Main Pool. Barrier free fishing walls are located on all three pools. The South pool is a designated ice fishing lake.

Fish Population Survey

Fish population surveys are periodically conducted on Forest Preserves lakes in order to assess the health of the lake and the fish population in it. Surveys last anywhere from a few hours to a few days depending on the size of the lake.

Water samples are collected and analyzed for each survey. The information collected over the years will show trends to the lake's health. If any unusual readings are found, further tests may be done, or the Illinois DNR and EPA may be asked to investigate.

Fish are collected during surveys to assess the health of the population. Several methods are used to collect fish, these include experimental gill nets, Fyke or trap nets and the use of an electro-fishing boat. All fish collected are measured, weighed and a scale sample is collected when applicable. These scale samples are used to age the fish. All fish are then returned to the lake when possible.

The information listed below was collected during the most recent survey. It is only a snapshot in time. Many factors such as temperature, wind, rain and even moon light can affect the species and number of fish that are collected. The Forest Preserves' Fisheries Section looks at data from many years when assessing a lake's fish population and assumptions from just one year of data therefore should not be made.

The dates of the survey along with the type of equipment used and the length of time it was fished is listed below. The "Total Population" tables & charts show all species collected and includes not only game fish but also forage fish. A healthy balanced population of forage fish and predatory (game) fish is needed in order to support a healthy overall fish population. Ideally, 30 to 40% of a lakes total fish population should be made up of forage fish in order to support a healthy predatory fish population. The species of forage fish varies from lake to lake, Gizzard Shad may be the main forage fish in one lake, while Bluegill/sunfish may be the main forage fish in another.

Individual species tables are included only for the game fish that were collected. Game fish are those fish most sought after by anglers.

Busse Reservoir – South Lateral Pool Population Survey

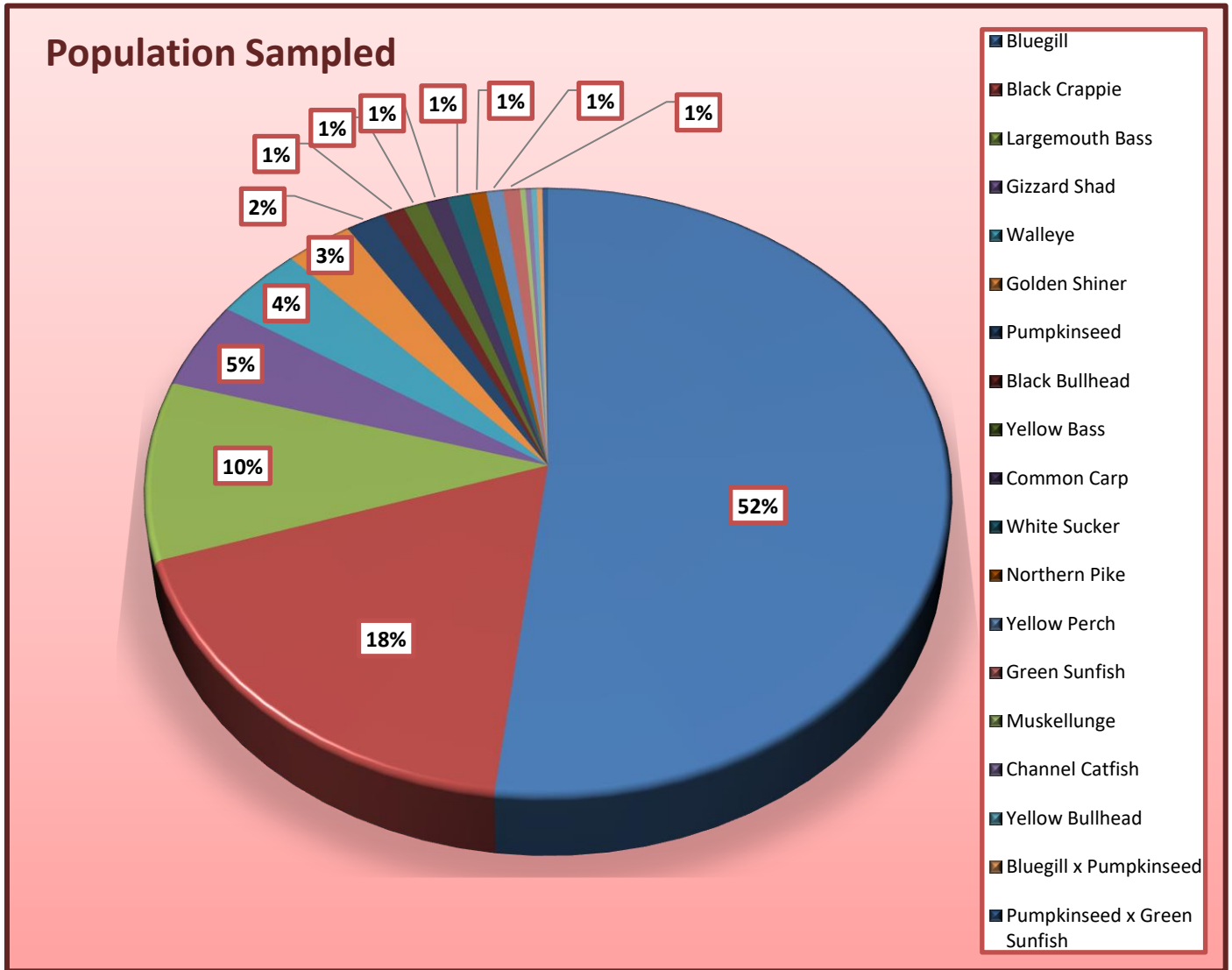


Date of survey: September 26-28, 2022
Electro-fishing time: 45 minutes
4 Fyke nets fished: 24 hours
0 feet of gill nets fished: 0 hours

Total Population Sampled

Species	Number	Percent
Bluegill	213	51.95%
Black Crappie	74	18.05%
Largemouth Bass	39	9.51%
Gizzard Shad	19	4.63%
Walleye	16	3.90%
Golden Shiner	12	2.93%
Pumpkinseed	7	1.71%
Black Bullhead	4	0.98%
Yellow Bass	4	0.98%
Common Carp	4	0.98%
White Sucker	4	0.98%
Northern Pike	3	0.73%
Yellow Perch	3	0.73%
Green Sunfish	3	0.73%
Muskellunge	1	0.24%
Channel Catfish	1	0.24%
Yellow Bullhead	1	0.24%
Bluegill x Pumpkinseed Sunfish Hybrid	1	0.24%
Pumpkinseed x Green Sunfish Hybrid	1	0.24%
Total	410	99.99%

Busse Reservoir – SLP Population Survey



Busse Reservoir – SLP Population Survey



Bluegill

1/2-Inch Group	Number Collected	% of Population	Average Weight lbs.	Age
1.0	24	11.27%	0.002	0+
1.5	7	3.29%	0.002	0+
2.0	3	1.41%	0.002	0+
2.5	5	2.35%	0.009	0+
3.0	45	20.86%	0.02	1+
3.5	9	4.23%	0.03	1+
4.0	15	7.04%	0.05	1-2+
4.5	23	10.79%	0.07	2+
5.0	48	22.54%	0.09	2-3+
5.5	17	7.98%	0.12	3+
6.0	13	6.10%	0.16	3+
6.5	3	1.41%	0.20	3+
7.0	1	0.47%	0.28	4+
Totals	213	100.01%		

Black Crappie

1/2-Inch Group	Number Collected	% of Population	Average Weight lbs.	Age
2.5	4	5.41%	0.004	0+
3.0	2	2.70%	0.002	0+
-	-	-	-	-
5.0	1	1.35%	0.20	1+
5.5	3	4.05%	0.09	1+
6.0	2	2.70%	0.11	1+
6.5	6	8.11%	0.16	1+
7.0	12	16.22%	0.19	2+
7.5	12	16.22%	0.23	2+
8.0	10	13.51%	0.26	2-3+
8.5	8	10.81%	0.31	2-3+
9.0	9	12.17%	0.37	3+
9.5	2	2.70%	0.53	3-4+
10.0	2	2.70%	0.59	4+
-	-	-	-	-
11.0	1	1.35%	0.74	4+
Totals	74	100.00%		

Busse Reservoir – SLP Population Survey



Largemouth Bass

½-Inch Group	Number Collected	% of Population	Average Weight lbs.	Age
2.0	1	2.56%	0.004	0+
2.5	4	10.26%	0.004	0+
3.0	2	5.15%	0.007	0+
3.5	1	2.56%	0.01	0+
-	-	-	-	-
4.5	1	2.56%	0.04	0+
-	-	-	-	-
7.0	1	2.56%	0.17	1+
7.5	1	2.56%	0.22	1+
-	-	-	-	-
8.5	1	2.56%	0.33	1+
-	-	-	-	-
9.5	1	2.56%	0.42	1+
10.0	3	7.69%	0.52	2+
-	-	-	-	-
11.0	2	5.15%	0.62	2+
-	-	-	-	-
12.5	4	10.26%	1.02	2-3+
13.0	3	7.69%	1.08	3+
13.5	3	7.69%	1.13	3+
14.0	5	12.82%	1.34	3-4+
14.5	1	2.56%	1.82	4+
15.0	1	2.56%	1.48	4+
15.5	1	2.56%	2.09	5+
16.0	2	5.15%	2.34	5+
-	-	-	-	-
18.0	1	2.56%	2.59	6+
Totals	39	99.96%		

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Walleye

1/2-Inch Group	Number Collected	% of Population	Average Weight lbs.	Age
7.0	1	6.25%	0.12	0+
-	-	-	-	-
11.0	1	6.25%	0.44	1+
-	-	-	-	-
12.5	1	6.25%	0.62	2+
13.0	1	6.25%	0.71	2+
-	-	-	-	-
18.0	3	18.75%	1.98	3+
18.5	1	6.25%	2.41	3+
19.0	2	12.50%	2.63	3+
19.5	2	12.50%	2.78	3-4+
20.0	1	6.25%	2.64	4+
20.5	1	6.25%	2.93	4+
-	-	-	-	-
21.5	1	6.25%	3.32	5+
22.0	1	6.25%	3.47	5+
Totals	16	100.00%		

Pumpkinseed

1/2-Inch Group	Number Collected	% of Population	Average Weight lbs.	Age
3.0	1	14.29%	0.02	1+
3.5	1	14.29%	0.04	1+
4.0	1	14.29%	0.04	1+
-	-	-	-	-
5.0	2	28.57%	0.10	2-3+
5.5	1	14.29%	0.15	4+
-	-	-	-	-
6.5	1	14.29%	0.25	4+
Totals	7	100.02%		

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Black Bullhead

1/2-Inch Group	Number Collected	% of Population	Average Weight lbs.	Age
11.0	1	25.00%	0.74	NA
11.5	2	50.00%	0.81	NA
12.0	1	25.00%	0.89	NA
Totals	4	100.00%		

Yellow Bass

1/2-Inch Group	Number Collected	% of Population	Average Weight lbs.	Age
7.0	1	25.00%	0.20	2+
-	-	-	-	-
9.0	2	50.00%	0.34	3+
9.5	1	25.00%	0.47	3+
Totals	4	100.00%		

Common Carp

1/2-Inch Group	Number Collected	% of Population	Average Weight lbs.	Age
21.5	3	75.00%	5.09	4+
-	-	-	-	-
28.0	1	25.00%	11.39	6+
Totals	4	100.00%		

Northern Pike

1/2-Inch Group	Number Collected	% of Population	Average Weight lbs.	Age
12.0	1	33.33%	0.30	0+
-	-	-	-	-
18.0	1	33.33%	1.05	2+
-	-	-	-	-
27.0	1	33.33%	3.39	3+
Totals	3	100.00%		

Busse Reservoir – SLP Population Survey



Yellow Perch

1/2-Inch Group	Number Collected	% of Population	Average Weight lbs.	Age
3.0	1	33.33%	0.01	0+
-	-	-	-	-
4.5	1	33.33%	0.04	0+
5.0	1	33.33%	0.06	1+
Totals	3	99.99%		

Green Sunfish

1/2-Inch Group	Number Collected	% of Population	Average Weight lbs.	Age
1.0	1	33.33%	0.007	0+
-	-	-	-	-
3.0	1	33.33%	0.02	1+
-	-	-	-	-
4.5	1	33.33%	0.07	2+
Totals	3	100.00%		

Other Species Collected

Species	Number	Length	Weight	Age
Muskellunge	1	22.0	2.04	1+
Channel Catfish	1	18.0	1.60	NA
Yellow Bullhead	1	8.0	0.27	NA
Bluegill x Pumpkinseed Hybrid	1	5.0	0.10	2+
Pumpkinseed x Green Sunfish Hybrid	1	3.5	0.04	1+

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Stocking

The Forest Preserves of Cook County works closely with the Illinois Department of Natural Resources to stock fishes within the Forest Preserves lakes. The decision to stock fish and the number of fish stocked is based on many factors including but not limited to type of species, size of fish stocked, size of the lake and type of stocking. The Forest Preserves of Cook County must follow State of Illinois regulation regarding the introduction and stocking of fish. All requests to stock a new species into a District lake must go through the State’s Management Recommendation Committee.

Most stocking fall under one of three categories, introduction, supplemental and put-and-take. Introduction stockings are the introduction of a new species within an existing lake or the stocking of a new body of water. Supplemental stockings are the stocking of species already in a lake and are used to supplement a species that may not successively reproduce on its own or has been over fished. Fish stocked in a put-and-take stocking are catchable size fish.

Size of Fish Stocked

Most of the fish stocked in the lakes of the Forest Preserves of Cook County are young-of-the-year and are provided by the IDNR Hatcheries. Fish from the hatcheries are stocked upon availability and are funded by your fishing licenses.

Channel Catfish are stocked at around 6-inches in most lakes.

The IDNR suspended the production, rearing and stocking of Northern Pike in 2017, Northern stocking resumed in 2020 and were stocked in the 7 to 9-inch range. Muskellunge range from 10 to 14-inches and are stocked in the Main Pool of Busse Reservoir intermittently.

Walleye fingerlings from the IDNR are 2 to 3-inches and the Walleye from the Tampier Walleye Propagation Program are stocked as fingerlings and/or fry.

Species	2018	2019	2020	2021	2022
Channel Catfish	6,250	-	6,299	12,500	6,250
Northern Pike	-	-	462	468	468
Walleye	9,817	8,500	11,646	11,782	10,543
Muskellunge	1,000	-	-	-	-

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Population Overview

The South Lateral Pool (SLP) of Busse Reservoir like the Main Pool offers some of the best fishing opportunities within the Forest Preserves of Cook County. There is a very large population of forage fish from Gizzard Shad to White Suckers that help support a healthy game fish population.

While the overall population breakdown does not show it, Gizzard Shad is most likely the most abundant species found in Busse Reservoir. This Species is more of an open water species so are not collected in large numbers by electro-fishing. These shad make up most of the forage fish that every other species is feeding on. In yearly summer there are millions of young-of-year (YOY) shad that support sunfish, crappie, bass, walleye, and every other game fish found in the SLP. Unfortunately, this can also make this lake hard to fish since everything is feeding on shad.

Of the Bluegill collected in the 2022 survey, 38.5% were over 5-inches. Thousands additional Bluegill were observed but not collected. Black Crappie ranged in size from 2.5-inch YOY up to 11.0-inches. These crappie were bigger than those found in the 2018 survey, with those crappie only reaching 8.0-inches.

Largemouth Bass is the predominately the most sought-after gamefish at Busse Reservoir. Of the 39 bass collected electro-fishing, half were over 12-inches and eleven of these reaching the legal size limit of 14-inches. Based on observations during the IHSA High School Bass Tournaments, while the bass in the Main Pool are more numerous than in the SLP, the South Pool usually produces large total weights and the largest fish. While bass fishing the Main Pool may produce more fish, the South Pool may get you bigger ones.

Seventy five percent of the Walleye collected in the 2022 survey were over the legal size limit of 18-inches. The largest Walleye collected was 22-inches and just under 3.5 lbs. The Forest Preserves of Cook County and the Illinois Department of Natural Resources (IDNR) first stocked Walleye in Busse Reservoir in 1986. Both the Main Pool and the SLP have received Walleye from the State fish hatcheries every year since.

Busse SLP also receives an annual stocking of four to six inch Channel Catfish. After a hiatus of three years beginning in 2017, the South Pool once again started getting an annual stocking of Northern Pike. In 2018 the IDNR tried an experimental stocking of 1,000 5-inch Musky. At this size they are easily preyed upon and at the normal stocking rate does not do to well. It is hoped that stocking this size Musky at a higher stocking density may help. Further sampling is needed before in can be determined is this stocking was a success or not.

Overall, the South Pool, along with the rest of Busse Reservoir may offer local anglers some of the best fishing opportunities within the Forest Preserves of Cook County.