

Introduction & Survey Objectives

Fisheries biologists conducted spring population surveys using trap nets and boat electrofishing to assess fish populations. Grand Island community lakes include Cornhusker WMA, Heartland Shooting Park, Eagle Scout, Sucks Lake, Pier Park, and L.E. Ray. Fish population dynamics including species composition, size structure, and relative abundance was compared. Grand Island lakes are on a 5 year survey schedule and were previously sampled in 2017. The following report is a brief summary of survey results collected in 2022 and description of the general status of fish populations found in each lake.

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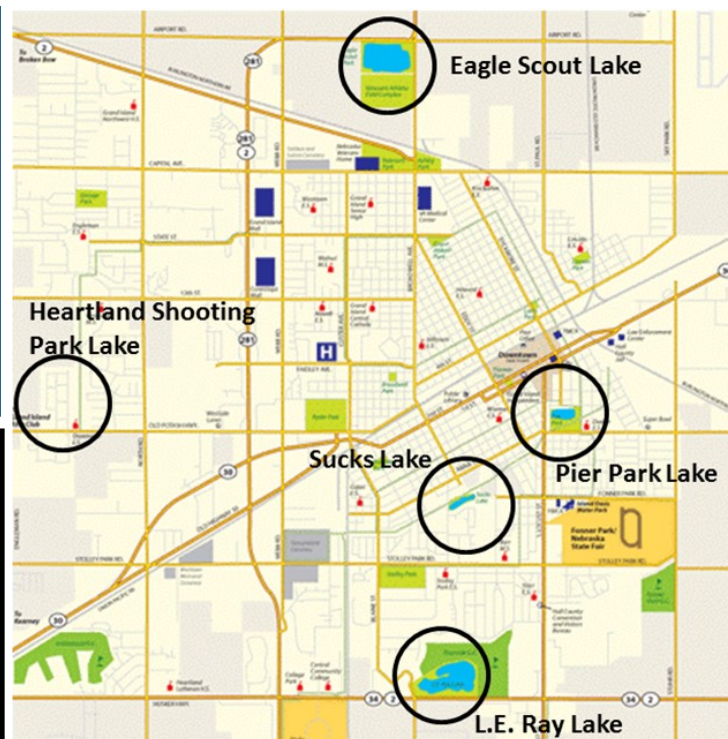
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Survey Methods

Most Grand Island community lakes were sampled during the day with electrofishing. All collected fish were identified and measured to the nearest 10 mm length group. Shocking effort ranged from 15 to 38 minutes. L.E. Ray was sampled with 4 trap nets and night shocking. Trap nets are used to target panfish such as bluegill and crappie. Electroshocking is primarily used to target largemouth Bass and common carp and is often done at night in lakes with clear water.



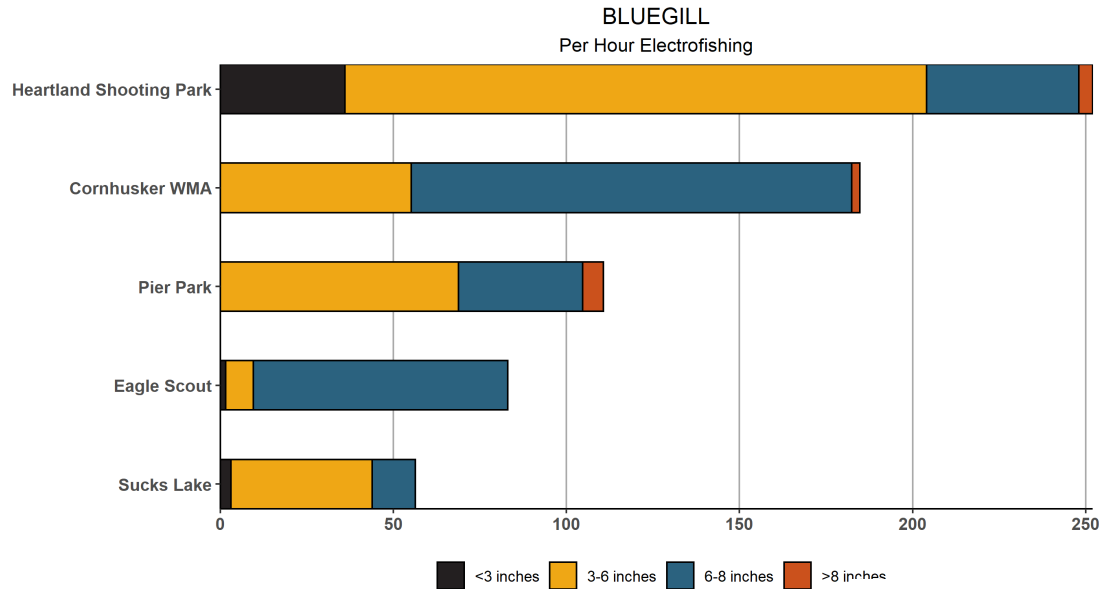
Map of Grand Island with community lakes circled. Cornhusker WMA is directly north of Heartland Shooting Park.

Survey Information

Lake	Gear	Survey Date(s)	Survey Effort
Cornhusker WMA	Day Shocking	6/6/2022	25 min
Eagle Scout	Day Shocking	6/2/2022	38 min.
Heartland Shooting Park	Day Shocking	6/6/2022	15 min.
L. E. Ray	Trap Nets Night Shocking	5/12/2022 6/2/2022	1 Night 36 min.
Pier Park	Day Shocking	6/2/2022	20 min.
Sucks	Day Shocking	6/2/2022	19 min.



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Bluegill Summary

Bluegill anglers have plenty of lakes to choose from in the Grand Island area. Bluegill were the most common fish sampled with over 2,000 fish collected in the 2022 surveys.

Heartland Shooting Park and **Cornhusker** had the highest catch rates of bluegill. **L.E. Ray** had a good trap net catch of 38 bluegills per net (L.E. Ray was the only Grand Island Lake sampled with trap nets). Most bluegill sampled at **Eagle Scout** were 6 to 8 inches.

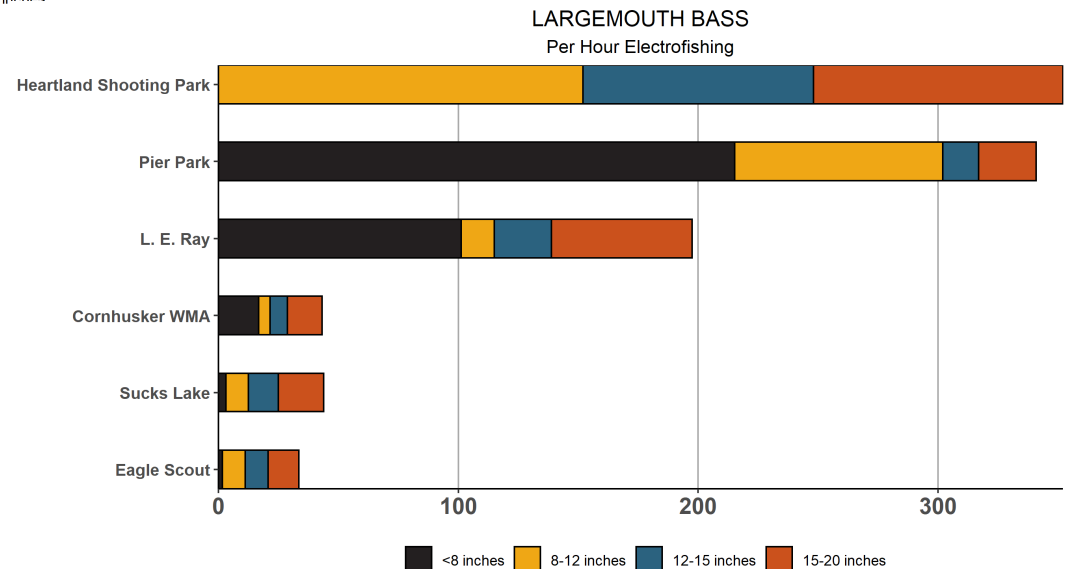
The bluegill populations found in most Grand Island lakes had a poor size structure. Ninety-five percent of the sampled fish were less than 7 inches and only three lakes had bluegill greater than eight inches. Anglers that want to catch bigger bluegills should try **Cornhusker, Pier Park** or **Heartland Shooting Park**.

Largemouth Bass Summary

There are plenty of angling opportunities for largemouth bass in the City of Grand Island. Spring shocking surveys collected 413 largemouth bass, ranging from 3.5 to 19.7 inches and having an average length of 10.6 inches.

Heartland Shooting Park, Pier Park, and L.E. Ray had the highest catch rates and most abundant bass populations. **Heartland Shooting Park** had the most well balanced bass population and would provide the best opportunity to catch 12 to 20 inch bass.

All the Grand Island City Lakes have largemouth larger than 15 inches. Although catch rates were lower, **Cornhusker, Sucks Lake, and Eagle Scout** provide good opportunity to catch decent sized largemouth.



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Please don't dump pets in public waters.

Fish Description Metrics

Proportional Stock Density (PSD) is an index used to describe the size structure of a fish population. PSD is calculated by dividing the number of quality sized fish and larger by the number of stock sized fish and larger for a given species. Stock size fish are the minimum length frequency effectively sampled by a sampling gear. Quality size is the minimum size that most anglers want to catch. The number of preferred, memorable, and trophy sized fish can be divided by the number of stock fish to calculate PSD-P, PSD-M, and PSD-T. Generally accepted PSD ranges for balanced fish populations are Bluegill 20-60, Crappie 30-60, Largemouth Bass 40-70, and Northern Pike 30-60.

Catch per unit effort (CPUE) is an index used to measure fish population relative abundance which is the number of fish captured per unit effort. CPUE indexes are comparable to statewide data.

Length Frequency Distribution (LFD) is a graphical representation of the percentage of fish captured at one inch intervals. Small fish (or young age-classes) may not always be represented in the length frequency due to different habitat usage and gear sampling limitations.

Cornhusker WMA

This 1-acre pond has good shoreline access and contains bluegill, channel catfish, largemouth bass, and a few crappie. The east end of pond is susceptible to summer drawdowns and aquatic vegetation is abundant. Channel catfish will be stocked in 2023. Cornhusker has a high abundance of 5 to 7 inch bluegill.

Eagle Scout Lake

Eagle Scout is a 55-acre lake located on the northern edge of Grand Island. This lake has good shoreline access and a paved trail all the way around the lake. Fish species present include black bullhead, bluegill, common carp, channel catfish, green sunfish, largemouth bass, shortnose gar, and white crappie. Flathead catfish were stocked in 2022. Visit Eagle Scout if you want to catch bluegill and channel catfish.

Heartland Shooting Park

This 7-acre lake is open to fishing during public shooting hours. It is **catch-and-release** and **barbless hooks only**. Species found are bluegill, channel catfish and largemouth bass. Channel catfish and largemouth bass populations were abundant and had an excellent size structure.

Cornhusker

Species	Total Fish	Average Length (inches)	Length Range (inches)	CPE (#/hour)	PSD
Bluegill	77	6.0	3.9 — 7.8	185	70
Largemouth Bass	18	11.3	5.9—18.1	43	82
Crappie	3	8.5	8.2-8.6	7	—

Eagle Scout

Species	Total Fish	Average Length (inches)	Length Range (inches)	CPE (#/hour)	PSD
Bluegill	52	6.2	2.7—7.0	83	90
Largemouth Bass	21	12.8	5.9—17.7	34	70
Channel	14	16.8	7.4—23.6	22	54

Heartland Shooting Park

Species	Total Fish	Average Length (inches)	Length Range (inches)	CPE (#/hour)	PSD
Largemouth Bass	88	13.0	8.2—19.2	352	57
Bluegill	63	4.9	1.5—8.6	252	22
Channel Catfish	7	22.7	18.5-25.1	28	—

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L.E. Ray

Species	Total Fish	Average Length (inches)	Length Range (inches)	CPE (#/net)	PSD
Largemouth Bass	158	10.5	5.1 — 19.7	197.5* (#/hour)	86
Bluegill	128	6.4	4.3 — 7.1	32	90
Channel Catfish	72	19.8	14.5-24.8	18	97
Yellow Perch	43	6.4	5.5—7.0	53.8* (#/hour)	—
Black Crappie	38	7.1	6.2—8.6	9.5	—

Pier Park

Species	Total Fish	Average Length (inches)	Length Range (inches)	CPE (#/hour)	PSD
Largemouth Bass	114	8.2	3.5 — 19.3	341	31.0
Bluegill	37	5.3	3.5 — 7.9	110	24.1

Sucks

Species	Total Fish	Average Length (inches)	Length Range (inches)	CPE (#/hour)	PSD
Bluegill	18	5.0	2.7 — 6.7	—	19.0
Largemouth Bass	14	13.4	4.7 — 17.7	43.8	76.9

L. E. Ray

This 30-acre lake on the south side of Grand Island allows boats and kayaks. L.E. Ray has a concrete boat ramp and restricts boats to 5 mph (no wake). The fish community consists of bluegill, largemouth bass, and channel catfish but also offers unique opportunities to catch muskellunge, walleye, and yellow perch. This lake has good shoreline access, a walking trail, as well as a dog park. Muskies were stocked in 2022 and channel catfish will be stocked in 2023. Bluegill and largemouth bass catch rates were good in 2022 and we expect this trend to continue. **L.E. Ray has a 21" minimum length limit on largemouth bass and 40" minimum length limit on muskellunge.**

Pier Park

Pier Park Lake is a 9-acre lake located in east Grand Island. This lake has good shoreline access. Fish species present include black bullhead, bluegill, common carp, black crappie, channel catfish, green sunfish, and largemouth bass. Pier Park had high catch rates of largemouth bass and while most bass were less than 8 inches, there were good numbers of bass up to 19 inches. Visit **Pier Park** if you want to catch largemouth bass.



Sucks

Sucks lake is a 4-acre lake in the heart of Grand Island. This lake offers bluegill, carp, channel catfish, and largemouth bass fishing. Rainbow trout are stocked seasonally in March and October. Sucks lake had the poorest fishery in the Grand Island metro area with a catch of 43 bass/hour. Bluegill abundance was low and the size structure was poor. Gizzard shad, buffalo, and common carp were dominant. Eradication of nuisance species in Grand Island community lakes may be impossible due to connectivity between other city lakes during periods of high water. Predators may be the only option to keep shad in check. Anglers are encouraged to release largemouth bass.

