



Ross Barnett Reservoir 2024

Reel Facts

Buford Lessley – Fisheries Biologist

Buford.Lessley@wfp.ms.gov (601) 859-3421

General Information: Ross Barnett Reservoir is a 33,000 acre impoundment of the Pearl River. It consists of approximately 24,000 acres of open-water lake habitat and 9,000 acres of riverine habitat north of Hwy 43. The reservoir is managed by the Pearl River Valley Water Supply District (PRVWSD).

Location: Ross Barnett Reservoir is located six miles northeast of Jackson, MS and extends through Hinds, Rankin, Madison, Scott, and, Leake counties

Fishery Management: crappie, black bass, bream, and catfish.

Purchase a Fishing License: https://www.ms.gov/mdwfp/hunting_fishing/

Amenities

- 5 large campgrounds
- 5 marinas
- 16 parks
- 22 public boat launches
- 18 miles of walking trails
- Fishing piers
- Fish cleaning stations

Creel Limits

- 30 crappie per day
- 7 black bass per day, must be over 14 inches long
- 6 Striped/Hybrid Striped Bass per day, must be over 15 inches long
- 100 bream per day.
- No limit on catfish.

Regulations

The following areas are closed to trotlines, throw lines, set hooks, limblines, free floating fishing devices, jugs, and Yo-yos:

- Pelahatchie Bay and Pelahatchie Creek
- Area of the reservoir north of the main dam and south of a line between the point where Twin Harbors channel enters the main lake in Madison County and the Fannin Landing boat launch in Rankin County
- Within 100 yards of any sandbar or public boat launching facility within the main lake or river
- Marked navigational channel between State Highway 43 and Ratliff Ferry in Madison County.

Sportfishing Tips

Crappie

- In the spring, fish shoreline vegetation with jigs or minnows. In the summer and winter, troll river channel ledges or jig deep stump fields on main lake.

Largemouth Bass

- Target vegetation with frogs and other weedless plastics from the spring through the summer. Creek and channel ledges with submerged structure should be targeted in summer and fall.

Bream

- Use crickets or red worms in water 2 – 4 feet in depth. Also, target holes in the vegetation for beds.

Catfish

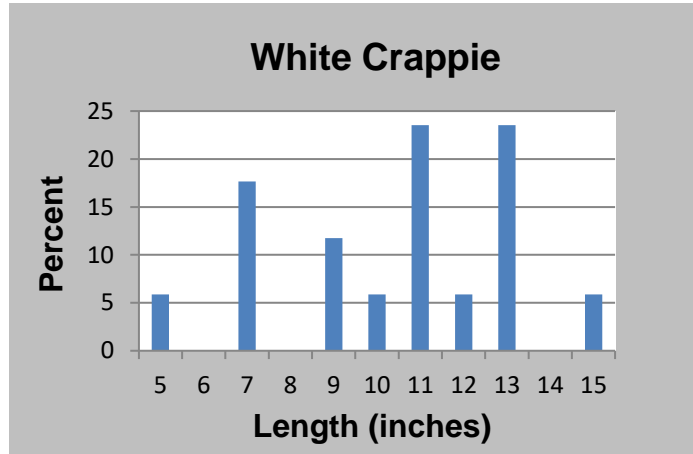
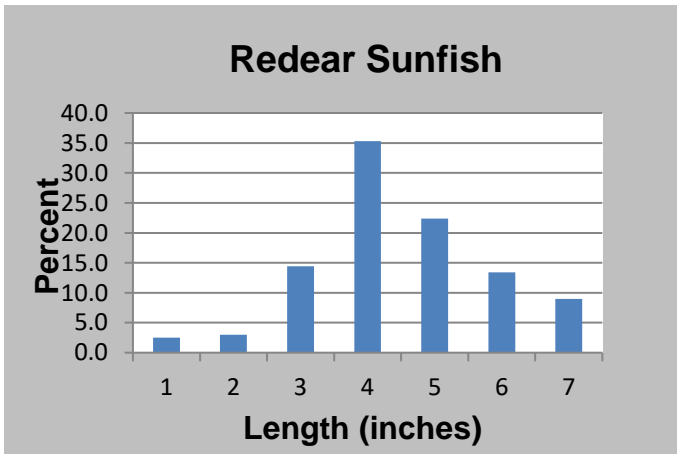
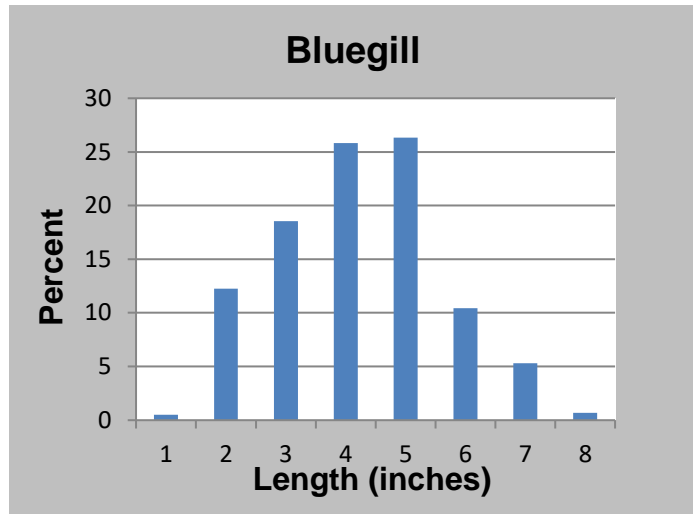
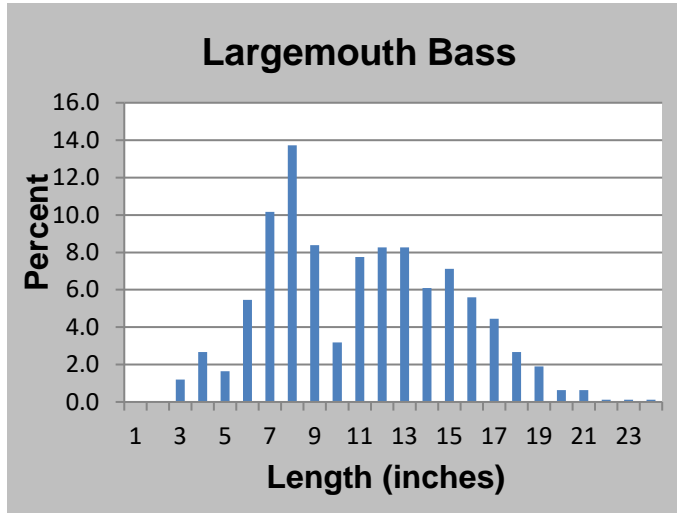
- Easily caught throughout the reservoir by tightlining cutbait, worms, liver, or stinkbait.

2023 Electrofishing Summary

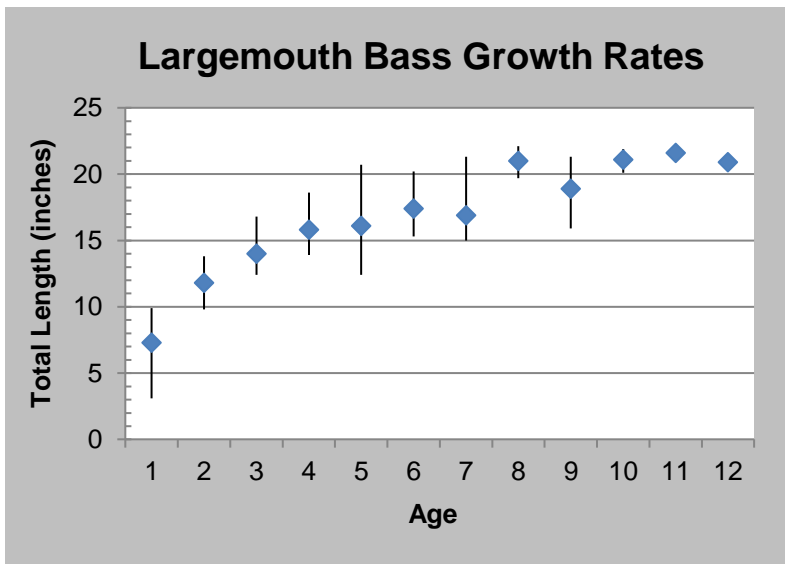
Species	# of fish collected	% of sample	Average Length (inches)	Maximum Length (inches)	Average Weight (pounds)	Catch Rate – Adult fish (fish/hour)
Gizzard shad	394	17	5.08	14.29	-	9.25
Threadfin shad	134	6	8	4.33	-	-
Blue catfish	8	<1	23.15	29.17	4.83	0.81
Channel catfish	50	8	14.59	20.67	0.92	4.72
Flathead catfish	1	<1	-	14.45	1.03	0.09
Green sunfish	16	1	4.17	6.77	0.06	1.66
Warmouth	13	1	5.51	8.62	0.22	1.06
Bluegill	604	27	4.69	8.43	0.09	48.06
Redear sunfish	201	9	5.98	8.94	0.14	18.03
Spotted bass	6	<1	12.94	15.31	1.37	0.56
Largemouth bass	787	35	11.60	24.25	1.19	61.66
White crappie	17	1	10.92	15.24	0.80	1.59
Black crappie	39	2	11.22	16.02	0.88	3.66

Above: Results from the 2023 electrofishing survey on Ross Barnett Reservoir. The reservoir is sampled by electrofishing every year during the fall. Catch rates of Bluegill, Threadfin Shad, and Gizzard Shad remain high providing a large forage base for black bass and crappie. A total of 32 samples were done on Ross Barnett Reservoir. Each sample was 20 minutes long for a total of 10.53 hours. Multiple samples were taken in Pelahatchie Bay, the main lake area, above highway 43 and upriver. The catch rate shows how many fish were collected over those 32 samples.

Below: Length distributions for sport fish from the 2023 electrofishing survey at Ross Barnett Reservoir. These figures indicate a wide size distribution of each species, high numbers of catchable sized fish, and successful reproduction, all of which are signs of healthy fish populations.

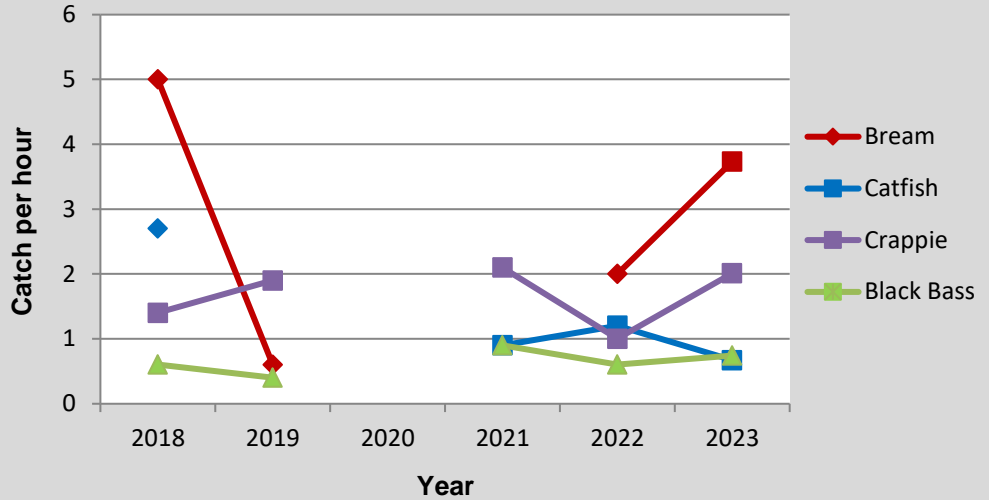


Right: Growth rates for Largemouth Bass in Ross Barnett Reservoir. The mean length at age values are indicated by the blue diamonds. The line through each diamond represents the range of lengths for each age group. For example, the average length of age 3 bass is 14 inches, and they range in size from 12.5 inches to 17 inches. Differences in growth rates for individual fish are due to genetic and environmental factors.

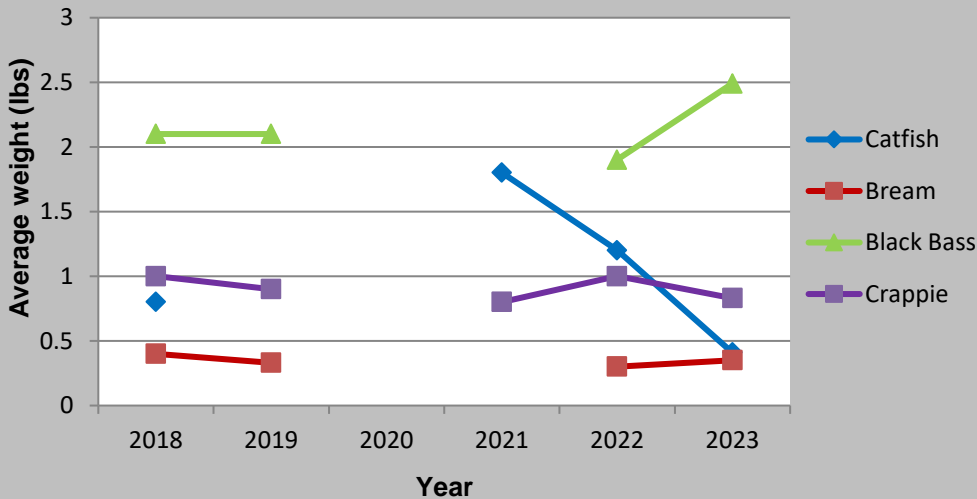


Below and Right:
 Results from spring angler creel surveys for the last five years. Crappie catch rate increased slightly in 2023, while average weight decreased from 1 to 0.83 pounds. Black bass catch rates increased slightly in 2023.

Angler Catch Rates



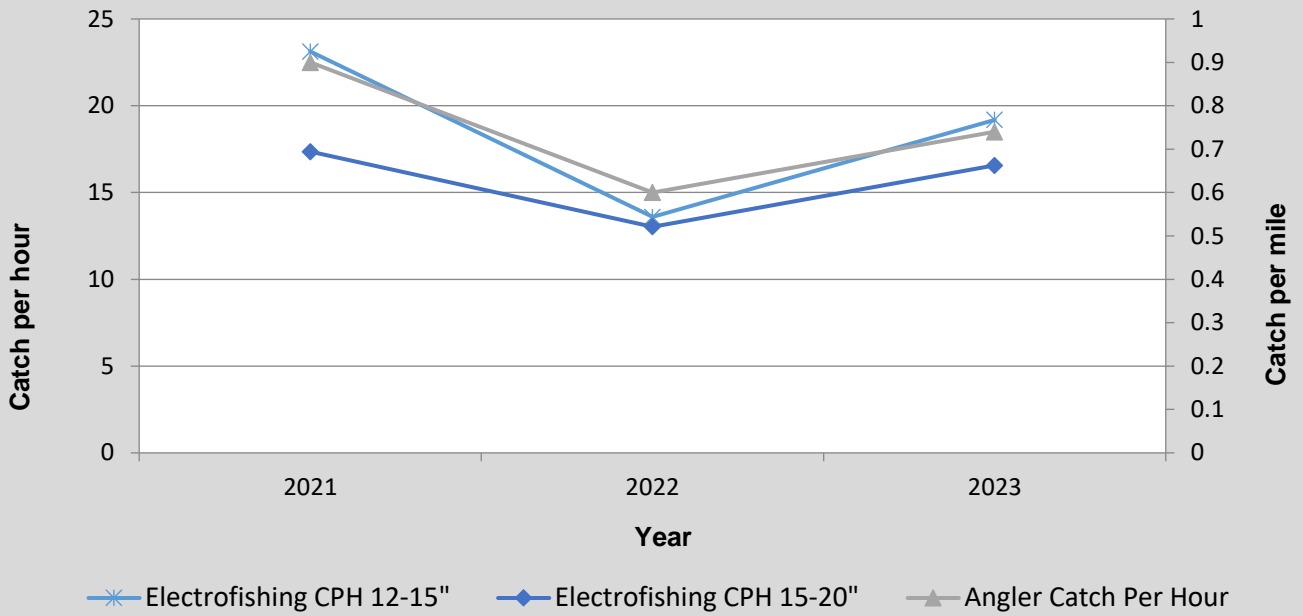
Average Weight of Harvested Fish



Below: Ross Barnett Reservoir contains many native aquatic vegetation species. Large stands of American lotus can be found in Pelahatchie Bay, the northeastern main lake, and upriver. These areas provide abundant fish habitat which are targeted by anglers year round.



Black Bass Catch per Unit Effort



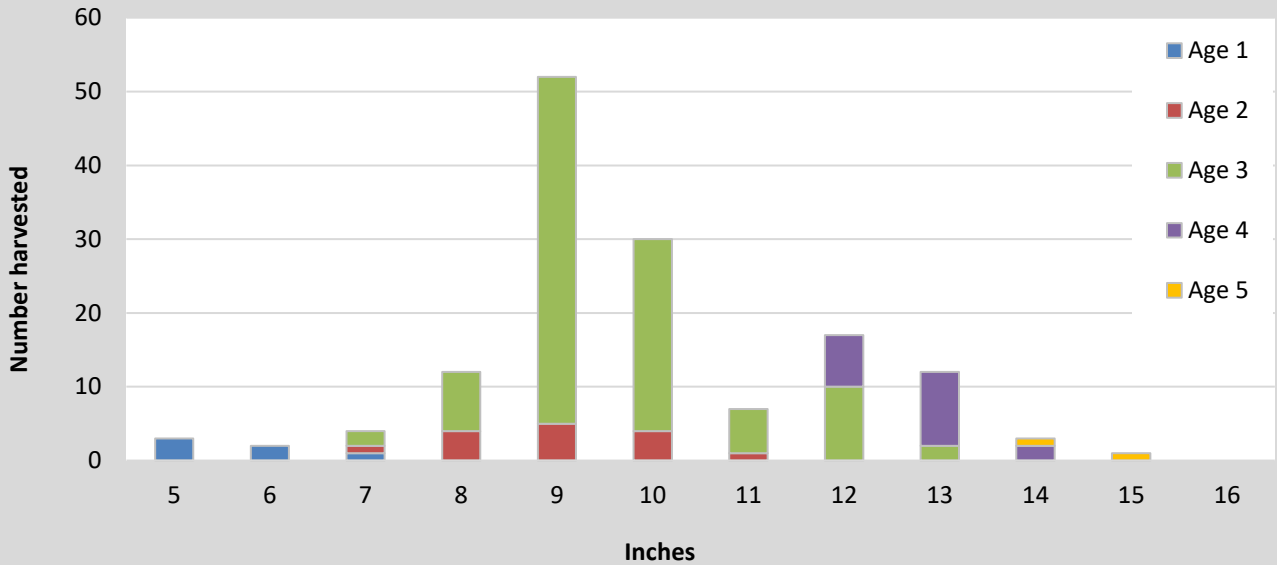
Above: Catch rate trends of Largemouth Bass from fall electrofishing (ELE) samples and spring angler surveys on Ross Barnett Reservoir.

Electrofishing catch rates of Largemouth Bass fell slightly in 2022 for fish between 12"-14" and 15"-20" fish before rebounding slightly in 2023. Angler surveys were suspended in 2020 due to Covid-19.

Right: Data from 27 bass tournaments held in 2022 included information from 2,048 anglers who weighed in 4,312 black bass. Winning weights averaged 18.02 pounds and average lunker was 6.09 pounds. Those numbers are up slightly from 2021 when the average winning weight was 17.2 pounds and average lunker weighed 6 pounds.



Age Composition of White Crappie



Above: Length frequency with age composition of White Crappie captured in lead nets on Ross Barnett Reservoir in 2023. A total of 152 White Crappie were measured and a subsample of 142 were aged during the 2023 angler access creel survey.

Below: Anglers enjoy high catch rates during the spawning season on Ross Barnett Reservoir. Male White Crappie can be identified with dusky coloration during this time of the year.

