



Enid Reservoir 2022

REEL FACTS

Keith Meals – Fisheries Biologist

keithm@wfp.ms.gov

General Information: Enid Reservoir is one of four flood control reservoirs (FCRs) in north Mississippi. Built by the US Army Corps of Engineers (COE) in 1954 on the Yocona River, it has a summer pool of 16,130 ac. Water levels follow an annual rule curve, but deviate from it due to local precipitation and COE spillway gate operations. The reservoir is lowered in fall to winter pool (6,120 ac); flood pool is 27,950 ac. Enid contains 400 ac Wildcat Brake, a subimpoundment in the upper reservoir between the Yocona River and Otoucaloufa Creek.

Location/Contact: 10 miles south of Batesville, MS. COE office (662) 563-4571.

Fishery Management: Crappie, catfish, Largemouth Bass, and White Bass.

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

Amenities

- 10 concrete fee ramps, plus 3 gravel ramps at Wildcat Brake
- Bait shops in Batesville, Water Valley, etc.

Creel and Size Limits

The following apply to the reservoir, but not the spillway.

- Crappie: Must be over 12 inches. 15 crappie per day per angler; no more than 40 crappie per boat (3 or more anglers).
- Largemouth Bass: No length limit and 10 bass per day per angler.
- White Bass: No limits.
- Bream: No length limit and 100 per day per angler.
- Catfish: No limits.

Regulations

- No more than 25 jugs and no more than 25 yo-yos may be fished per person with no more than 2 hooks per device. Jugs and yo-yos must be tagged with the license holder's MDWFP number or the angler's name and address. Gear must be attended (in sight) during daylight hours.
- Grabbling season May 1 – July 15; only wooden structures allowed.
- No more than 4 poles may be fished per person; no more than 2 hooks or lures per pole.
- Spillway: Consult Outdoor Digest

Fishing Tips

General

- Best fishing is usually in the spring and fall.
- Fish near deeper water if the water is falling; fish shallower if it is rising.

Crappie

- Target shoreline cover in spring in creek arms and coves. In summer and fall, troll for suspended fish in creek mouths and the main reservoir.

Largemouth Bass

- Target cover in coves in spring, main reservoir points in summer, and tributaries in fall.

Bream

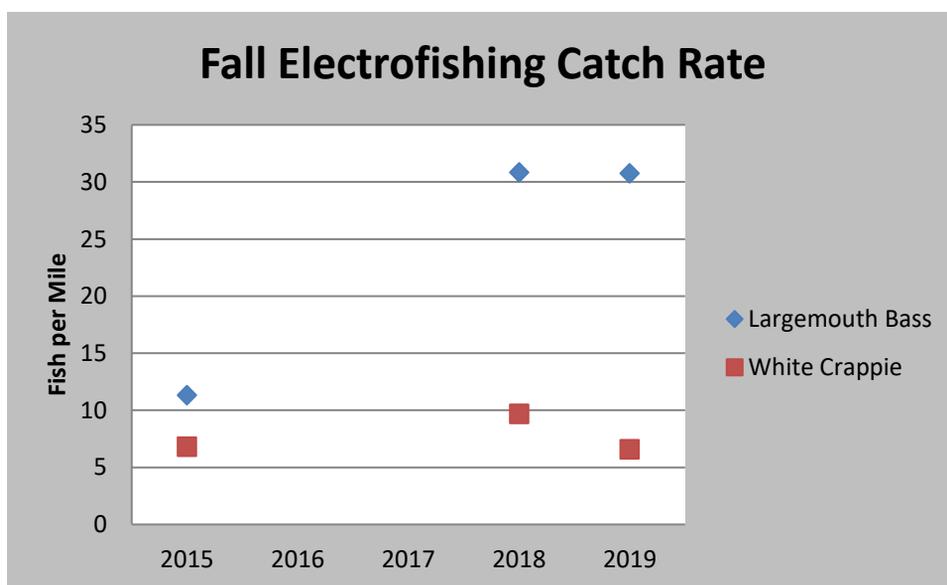
- Fish crickets or redworms near cover.

Catfish

- Fish worms or cut bait in tributaries during runoff or over mudflats if no runoff.

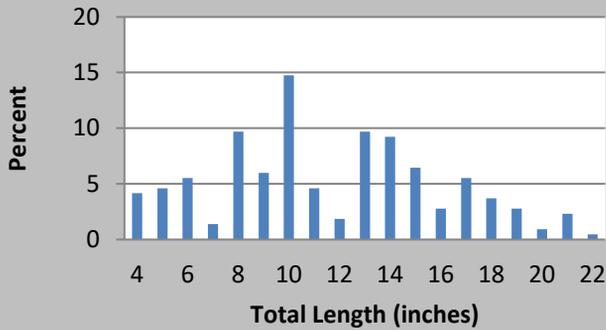
Species	# of fish collected	% of sample	Average Length (inches)	Maximum Length (inches)	Average Weight (pounds)	Catch Rate – Adult fish (fish/mile)
Bluegill	248	29	5.9	8.3	0.2	69
Gizzard Shad	238	27	9.7	12.0	0.3	10
Largemouth Bass	217	25	12.8	22.1	1.4	7
Black Crappie	56	6	10.7	13.4	0.5	31
White Crappie	55	6	12.0	14.8	0.7	10
White Bass	29	3	11.9	16.9	1.0	8
Channel Catfish	17	2	19.6	26.5	2.6	3
Redear Sunfish	6	1	4.5	5.8	0.1	2
Spotted Bass	3	<1	6.1	6.2	0.1	<1
Blue Catfish	2	<1	29.5	40.8	19.0	<1
Hybrid Sunfish	1	<1	7.8	7.8	0.4	<1

Above: Fall 2019 electrofishing results. Abundant small fish measured in length groups are not included in average lengths and weights, only fish measured individually. Forage fish (Gizzard Shad, Bluegill) were numerous, but mostly small. Numerous Bluegill were due to more food and habitat from flooding. One Bluegill X Green Sunfish hybrid was seen; natural hybrid sunfish are rare. Large average size of Blue Catfish was due to collecting one 36.3 pound fish.

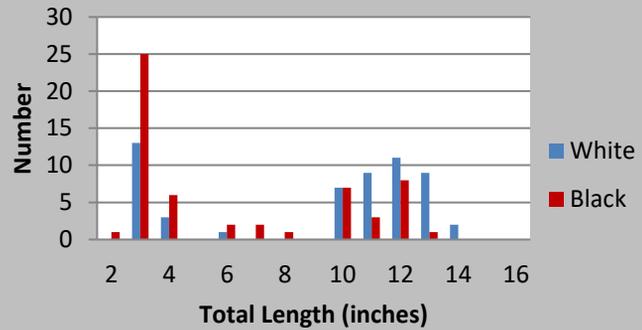


Above: Trend in fall electrofishing catch rates for adult Largemouth Bass and White Crappie. Bass numbers have risen sharply because of higher water (except 2017) improving shoreline habitat plus catch-and-release fishing. Crappie numbers declined since 2018 due to low numbers of 2018 crappie.

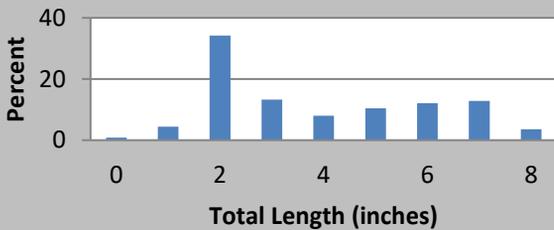
Largemouth Bass



Crappie



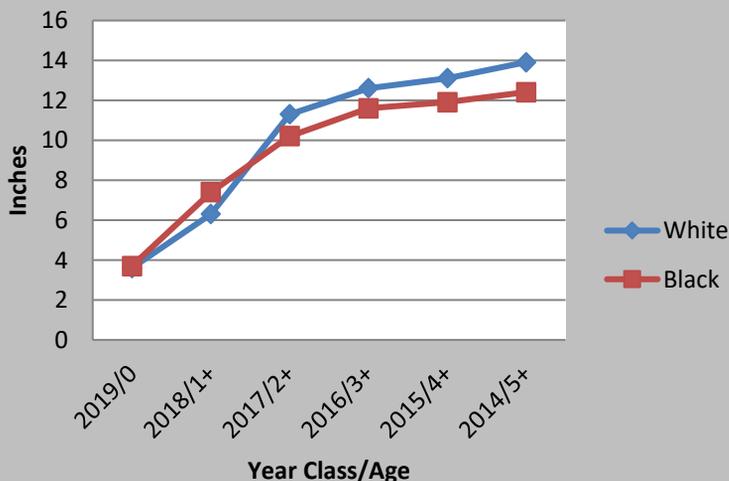
Bluegill



Above: Length distributions, fall electrofishing, 2019. Bass near 10 inches were likely from the big 2018 year class; Enid usually has more big bass than the other FCRs. FCR bass populations fluctuate mostly from environmental factors (mainly water levels) since angler harvest is low. Bluegill (“bream”) had a good proportion of harvestable sized fish (6 inches or larger). Bass, Bluegill, and Black Crappie usually spawn heavily during flooding. Bass and bream do well on Enid because the water is usually clear.

Below: Growth rates for Black and White Crappie, fall, 2019. Both White and Black Crappie from the big 2016 year class were well represented. Not all fish captured were aged. Odd growth patterns were from low sample sizes of those year classes. Black Crappie grew slower than White Crappie, which is normal for the FCRs. On average, White Crappie grow over 12 inches just after their third “birthday”; it takes about a year longer for Black Crappie.

Crappie, Length at Age



Year Class	Age	# White Crappie aged	Average Length (inches)	# Black Crappie aged	Average Length (inches)
2019	0	16	3.6	17	3.7
2018	1+	1	6.3	5	7.4
2017	2+	16	11.3	4	10.2
2016	3+	15	12.6	8	11.6
2015	4+	3	13.1	4	11.9
2014	5+	3	13.9	3	12.4

Harvest and Fishing Effort: MDWFP fisheries biologists conduct an angler survey every four years on each FCR to assess fishing effort, harvest, and catch rates. Other information gathered during the survey includes angler origin, expenses, bait, tackle, etc. An angler survey is being conducted on Enid in 2022, and results will be posted after data are analyzed.

Typically, most Enid anglers fish for crappie (right, top), often trolling open water with multiple poles (spider rigging, right, bottom). Enid is the home of the state and world record White Crappie (5 lb. 3 oz., bottom). Catfish and Largemouth Bass are other popular targets, with White Bass and bream making up the remainder.

Normally, about half of Enid's anglers come from the three counties around the reservoir. About one-fifth come from the Memphis (TN) metropolitan area (including Desoto County, MS), and about 15% from out-of-state (other than Memphis).

In 2014, about a third of Enid's crappie anglers reported they had fished another FCR within the last week, and nearly two-thirds said they would travel to another FCR if they heard the fish were biting there. Crappie regulations were made uniform on the FCRs in 2015 to reduce confusion among highly mobile anglers.



Lake Characteristics: Enid normally fluctuates 20 ft during the year following a “rule curve” based on seasonal rainfall patterns. For water levels (rule curve vs actual water level), see <http://www.mvk-wc.usace.army.mil/docs/bullet.txt> for a table <http://www.mvk-wc.usace.army.mil/plots/enidplot.png> for a graph or <http://www.mvk-wc.usace.army.mil/resrep.htm> for both. Water level fluctuations can make it challenging to find and pattern fish.

Fall drawdowns and droughts let moist soil vegetation colonize mudflats (below) to provide fish habitat when water levels rise. Flooding brings in nutrients and expands fish habitat. Aquatic vegetation is scarce due to fluctuating water levels, but flooded trees and shrubs are abundant at high water levels (bottom). Unless the water is above summer pool, there is very little cover for fish or anglers other than dead, standing timber and flooded moist soil vegetation.



Enid's water level fluctuations sometimes result in low water during the spring spawning season and/or limited vegetation colonization during the fall drawdown. However, the Enid Reservoir COE sponsors a Habitat Day in winter when the water is low. Materials are strategically placed in the fluctuation zone by COE and MDWFP personnel with the assistance of many volunteers (below) to provide fish habitat when the water comes back up. Although beneficial, these artificial structures cannot replace the quantity or quality of habitat created by flooding natural vegetation.



Other: The Enid COE also puts on a Physically Challenged Fishing Rodeo every year, assisted by MDWFP and a host of volunteers (right and bottom). Anglers are loaded onto pontoon boats and taken fishing in the reservoir. Afterwards, they are treated to a fish fry with prizes. For some of these anglers, it is the only day of the year they get to fish, so they don't take a day fishing for granted.



Spillway: The Enid Reservoir spillway is also a popular fishing destination, mostly for catfish and crappie. Crappie in the spillway are dependent on reservoir releases and are caught mostly in winter and early spring; catfish are more common in summer. A new COE handicapped accessible pier (below, left) was opened in 2017 to replace an old pier on the same site.

The Yocona River below the reservoir allows access into the spillway by many wide-ranging fishes, such as Asian carps (below, right, top - Silver Carp; below, left, bottom - Bighead Carp) from the Mississippi River. Regulations prohibit anglers from keeping alive bait fish captured in the spillway to prevent the spread of these nuisance, non-native fishes to other waters. Uncommon species in the spillway may include Paddlefish, American Eel, Striped Bass, and Hybrid Striped Bass.

In 2019, the emergency spillway overflowed (bottom) for the first time since 1991. In 2002, the water level reached, but did not exceed, emergency spillway elevation (268 ft).

