



WHEEL LAKE

BANNER MARSH STATE FISH AND WILDLIFE AREA

FISHERIES STATUS SUMMARY

LOCATION and DESCRIPTION: Located in Central Illinois, the 5,524 acre Banner Marsh State Fish and Wildlife Area lies adjacent to the Illinois River, 4 miles north of Banner, Illinois, along Route 24. The former bottomland lake and marsh was leveed and drained for agricultural practice from 1910 through 1958. From 1958 to 1974 approximately 90 percent of the site was strip-mined for coal. The strip-mined areas have since been reclaimed and purchased by the State of Illinois. Under the management of the Illinois Department of Natural Resources (1978 - present) the primary objective for the site is to establish a freshwater marsh providing fish and wildlife habitat in the Illinois River Valley.

Banner Marsh SFWA was characterized by narrow strip pits and upland ponds, but in 1994 the hydrology changed due to the intentional cessation of pumping operations in the levee district. The water level rose approximately 7 feet (435 M.S.L.) due mainly to groundwater recharge by seepage under the existing 1-100 year flood-tight levee with the Illinois River. The total surface water acreage for the site increased from 530 acres to approximately 2400 acres and created a large vegetated littoral zone.

Wheel Lake (approximately 350 acres) is a deep final cut lake which is connected to a large series of strip mine wheel cut lakes. The wheel cut portion contains points, islands, flooded brush and diverse aquatic vegetation, while the final cut portion has little littoral zone and gravel substrate. The maximum water depth is 60 feet. Water clarity averages 4 feet in the summer.

The East Point access area has a concrete boat ramp, 50 vehicle and trailer parking lot, restrooms and a picnic pavilion. The lake has a 25 h.p. motor limit. The site is open 24 hours a day, except for the Central Zone Duck Season. At which time only shoreline fishing is allowed after 1 p.m.

HISTORY & STATUS of the SPORT FISHERY:

Largemouth Bass: In 2020, no spring trapnetting was completed due to COVID work restrictions. Fall D.C. electrofishing was used to survey the fish population. The largemouth bass population was evaluated by 252 bass in 115 minutes of electrofishing in 2020.

The largemouth bass population indices showed a high percentage of fish from 6 to 21 inches with average to good relative weight values. In 2000, the bass regulation for the Marsh was changed from a 14 inch minimum size limit and 1 fish per day - to a 12 to 18 inch protected slot length with a harvest of 3 fish under or over the slot per day.

The 2020 electrofishing survey indicated a size structure that is continuing to maintain a good level and stability since 2001. The PSD of 56, RSD14 of 32, RSD16 of 12 and the RSD18 of 4 have been consistent since 2016. The average body condition was a little low at 90.

The goal of the protected slot length limit was to create a high density bass population that is composed of fish large enough to be efficient predators upon the high density of slow growing panfish and the rough fish population. The benefit to bass anglers will be more fish surviving past 14 inches to catch, and for the anglers wanting to harvest bass will be the opportunity to harvest more fish.

The online IFISH tournament registration and result system was started in 2015. The tournament results showed these anglers spent 2,843 hours in 2016, 1,604 hours in 2017, 1,514 hours in 2018, and 1,220 hours in 2019 on Wheel Lake. They reported 392 legal fish in 2016 for .14 fish per angler hour. They reported 307

legal fish in 2017 for .19 fish per angler hour. They reported 260 legal fish in 2018 for .17 fish per angler hour. They reported 202 legal fish in 2019 for .17 fish per angler hour. They reported 302 legal fish in 2020 for .19 fish per angler hour.

Bluegill and Redear Sunfish: The bluegill and redear sunfish population was not sampled for data in 2020. The bluegill and redear populations continue to have poor size structure and body condition. The food and space competition with gizzard shad and common carp have continued the slow growth of the panfish.

Crappie: In 2020, 21 black crappie were sampled with a PSD of 62, RSD9 of 19 and a RSD10 of 19. 6 white crappie were sampled with a PSD of 100, RSD9 of 83, RSD10 of 83 and a RSD11 of 83. The body condition ratings were 84 and 96. Both crappie populations have seen an improvement in size indices since 2018. In 2018, the crappie harvest regulation changes to a harvest limit of 25 fish per day with only 10 fish over 10 inches allowed. Anglers should be able to concentrate on crappie with the flooded brush providing excellent habitat.

Channel Catfish: The channel catfish population was represented by 8 fish. These fish were in good body condition with an average Wr of 90. The PSD of 71 and RSD18 of 29 indicates a population of large fish is present. 904 channel catfish were stocked in 2020.

Flathead Catfish: A brood stock introduction of Flathead catfish was completed in 2000. 126 fish were stocked at an average weight of 4.9 pounds each. These fish should reproduce and maintain a low density population in the Marsh. Their diet has been shown to consist mainly of gizzard shad, bullheads, crawfish, carp, bluegill and crappie. In 2019, 6 fish from 18 to 37 inches were collected. And in 2020, 1 fish was collected at 19 inches in length. Natural reproduction and recruitment has been occurring in Wheel Lake.

Muskie: No spring trap netting for muskie population analysis occurred in 2020 due to COVID work restrictions. A total of 6 muskie were sampled by the spring trapnet survey in 2019. These fish ranged from 29.5 to 40.7 inches long. The body condition of these fish was good at an average Wr of 101. Muskie had been stocked annually in Wheel lake since the fall of 1996 at a rate of 1/acre. No muskie were stocked in 2015 or 2016. In 2017, 352 fish at 12.4 inches were stocked. No muskie stocking occurred in 2020 due to COVID production issues at Jake Wolf Hatchery. A triennial stocking is now scheduled to maintain a moderate density of healthy muskie. Illinois (Jake Wolf) muskie strain appear to be doing very good in this lake.

White Bass: White bass have been collected since 2010 in IDNR surveys. They were probably an introduction by anglers from the Illinois River. In 2020, a total of 1 white bass was collected at 17 inches. In 2019, a total of 13 white bass were collected from 12.6 to 17.7 inches. The body condition was good at a Wr of 92. It appears natural reproduction is now occurring enough to support recruitment in the lake. A low density population will probably be maintained.

FISHING REGULATIONS: Site specific angling regulations. Two pole and line fishing only except carp may be taken by bow and arrow devices, gigs or appears during May through August, all other statewide regulations apply.	Daily Creel Limit	Minimum Length Limit
All Fish	2 pole and line only	
Largemouth/Smallmouth Bass	3	12-18" protected slot length
Channel Catfish	6	None
Walleye	6	14" minimum
White and Black Crappie	25	9" minimum
Muskie	1	42" minimum

CONTACT INFORMATION – Rice Lake State Fish and Wildlife Area: 309/647-9184.
IDNR Fisheries County Fish Biologist: 309/446-9143.
Illinois Fishing Information booklet and IFISHILLINOIS website <http://www.ifishillinois.org/>