



CANTON LAKE

FISHERIES STATUS SUMMARY

LOCATION: Canton Lake is located 1 mile northeast of the town of Canton in Fulton County.

DESCRIPTION : Canton Lake is a 250 acre lake constructed in 1939 and was the primary potable water source for the city of Canton. Canton Lake has a maximum depth of 35 feet and an average depth of 14 feet. This water reservoir holds approximately 3,500 acre feet of water with 7.2 miles of shoreline. The 9,728 acre watershed is 82% agricultural, 12% woodland, and 6% municipal and residential. Historical water quality samples revealed a secchi disk average of 23 inches, a pH of 8.3, and total alkalinity of 135 mg/L. Conductivity readings averaged 375 umhos.

No submerged rooted aquatic vegetation is present in Canton Lake.

Historical information shows that DO and percent saturation levels for the bottom water levels drop extremely low during the summer months of June, July and August. The severity of the anoxic conditions vary with the site and the respective depths. In 1984, the City of Canton constructed an aeration line from the water treatment plant, over the dam and out near the water intake structure. A 7 ½ HP pump forces 25-42 cfm of air continuously through a 1" line. This has eliminated taste and odor complaints, but anoxic conditions still occur at the lake bottom during the summer months.

MANAGEMENT ACTIVITIES: In September of 1964, the lake was rotenoned and restocked with largemouth bass, bluegill, and fathead minnows. Due to a combination of intentional, unintentional and unauthorized fish stocking the fish community of the lake has changed over time.

The overall sport fishery of Canton Lake has been below a quality level since the 1992 survey. This decline is the result of inter-related fish and environmental problems. The high density carp population and sedimentation problem have a direct negative effect of the rooted, submerged aquatic plants. With turbid water conditions the carp thrive and continue the poor water quality, thus, affecting the food chain and sport fish population. The addition of gizzard shad and yellow bass have made Canton Lake very difficult to manage for quality largemouth bass and bluegill.

Conduct annual surveys to measure trends in fishery population dynamics, angling regulations and progress toward management goals. In the spring continue the annual population surveys, utilizing trapnets and boat electrofishing. The flathead catfish, blue catfish and channel catfish populations will be evaluated as time permits utilizing D.C. electrofishing .

Status of the Sport Fishery: The sport fishery in Canton Lake has developed into a quality location for flathead, blue and channel catfish. In 1997, 1998 and 1999 a total of 990 flathead catfish were stocked into Canton lake from the Illinois River periodically from June until January. In 1999 and 2001, blue catfish were stocked into Canton Lake in three stockings with a total of 15,200 fish stocked. All three species have established naturally reproducing populations in Canton Lake with quality fish present.

Starting in 2000, pure muskie have been stocked semiannually in Canton Lake.

Supplemental largemouth bass stocking has occurred when surplus fish are available from the state hatchery. Food competition and/or lack of desirable food (aquatic insects, larval fish) for young bass under nine inches is probably a major factor in poor recruitment of young bass to larger sizes in Canton Lake.

Once reaching approximately nine inches the bass are able to eat larger food (small fish) and not have the food source competition with yellow bass, crappie, bluegill and carp.

Largemouth Bass: In 2014, the electrofishing catch per unit for bass over 8 inches was at .57 fish/minute which is half of the goal of at least 1 fish per minute. Maintaining a stable bass population density will require consistent recruitment at least every other year. The size distribution and the percentage of bass over 15 and 18 inches is good. The body condition of bass at all sizes has remained good with the introduction of the gizzard shad. However the recruitment of bass to the population is still low and this is probably the main factor limiting the bass density.

Muskellunge: In 2014, 5 muskie were sampled in the spring trapnet survey. They ranged from 26.1 to 35.8 inches in length and were in excellent body condition with an average Wr of 102. The shad forage base will provide fast growth in Canton Lake. The main mortality in Canton Lake for muskie will probably be escapement over the spillway during annual high water events.

Bluegill: The bluegill population, catch per unit of effort, was average in 2014 (1.1 fish per minute). The recent introduction of the gizzard shad has had a negative effect on the bluegill body condition due to food competition.

The WR (Relative Weight) average had improved dramatically in 2010 and 2011 to Wr values of 101 and 95, but declined to low 90's from 2012 to 2014. The 2014 Proportional Stock Density (PSD) value was a 18. This is poor. The Relative Stock Density 7 (RSD7) value was at 0 which indicates very few bluegill over 7 inches at this time.

Crappie: These populations were represented by 68 and 49 fish respectively in 2014. The quality of the crappie population had improved dramatically over the past 10 years. An average population is now present. The current population is present at a low density of fish from 6 to 12 inches. The white crappie population values showed 31% of the fish over 10 inches and the black crappie values showed 2% of the fish over 10 inches. The WR (Relative weight) values were average at 92 and 91.

Channel Catfish: The population has continued to improve in body condition and population levels since 1992. The Relative weight (WR) has improved from poor condition in 1992 to excellent condition by 1999. The gizzard shad forage base is probably responsible for the body condition improvement. In 2014, 40 fish were collected by trap nets and the electrofishing survey. The body condition was excellent and 38% of the fish were over 18 inches in length. The turbid water conditions have permitted natural reproduction and recruitment to maintain the channel catfish population.

Flathead Catfish: In 2014, 9 flathead catfish were sampled by D.C. electrofishing. The size range was from 12.5 to 32.2 inches in length. The turbid water conditions and riprap shoreline areas have permitted natural reproduction and recruitment to maintain the flathead catfish population.

Blue Catfish: In 2014, 11 fish were sampled from 10.7 to 33.9 inches long by D.C. electrofishing. The turbid water conditions have permitted natural reproduction and recruitment to maintain the blue catfish population.

Other Fish Species: Other species that have been collected include golden shiner, northern pike, white catfish, black bullhead, yellow bullhead, carp, carp x goldfish hybrid, gizzard shad, white sucker, walleye, sauger, and white bass.

Fishing Regulations:

<u>Species</u>	<u>Size Limit</u>	<u>Creel Limit</u>
Large or Smallmouth Bass	15" minimum size	3 fish/day
Muskie	42" minimum size	1 fish/day
Channel catfish & Blue catfish	None	6 fish/day

CONTACT INFORMATION:

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IDNR Fisheries County Fish Biologist: (309) 446-9143.

Illinois Fishing Information booklet and IFISHILLINOIS website <http://www.ifishillinois.org/>