

**Farmers National
Company**

Comprehensive Walleye Management Report

Ponderosa Lake
Montezuma, IA
April 9 2017

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Comprehensive Walleye Report

Summary

Ponderosa Lake is a private, 440 surface acre lake located near Montezuma, IA. Water clarity ranged from 2 to 3 feet in 2017, which is fair water clarity for lakes in central Iowa. Water temperature at the start of the sample was 52.5F. We were also sampling at the end of the full moon cycle, which helps trigger the walleye to spawn.

Game fish species sampled and observed in Ponderosa Lake included largemouth bass, bluegill, green sunfish, crappie (black and white), walleye, yellow perch and channel catfish. A few bass were sampled and tagged, but most of the sampling effort was geared toward the walleye. Walleye were sampled from 15-29 inches in length. Several yellow perch were sampled and observed from 3-11 inches in length. The yellow perch is a new addition to the lake and it will be a wait and see how they fit into the ecosystem moving forward.

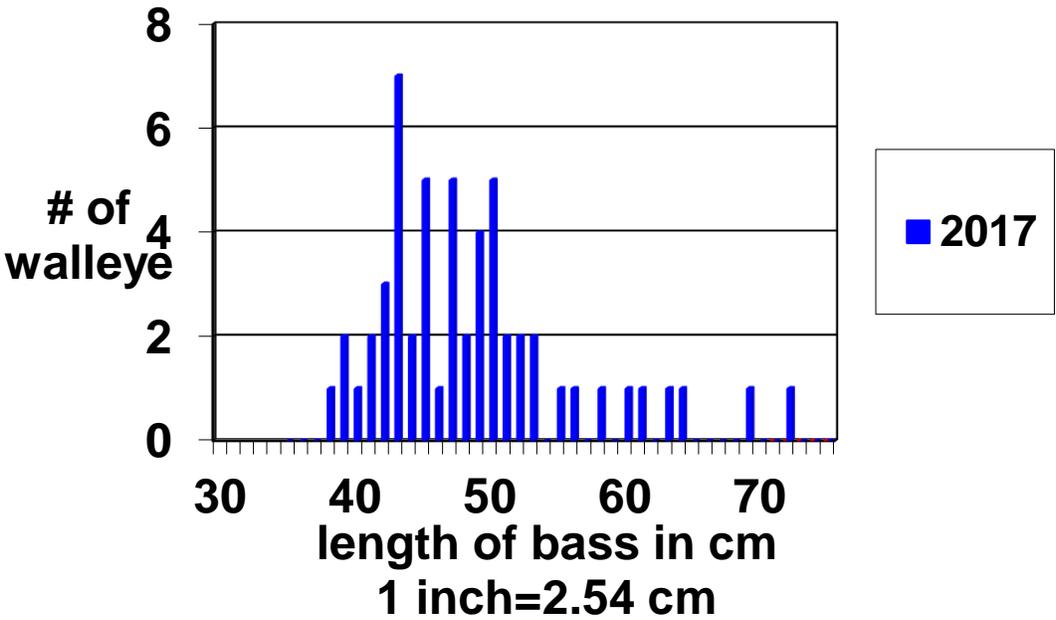
Non-gamefish species sampled included a few grass carp and common carp. All of the common carp and grass carp sampled and observed were over 10 pounds. This is an indication that the common carp are not a major problem in the lake at this time. Growing common carp of this size indicates that the overall population of common carp is being kept in check by the abundant gamefish.

A few larger grass carp (greater than 20 pounds) were observed. The grass carp have done their job and there is very little submerged aquatic vegetation. Grass carp do not reproduce, so the lake manager can control how many grass carp are in the lake.

Walleye

Farmers National Company sampled 55 walleye via electrofishing in Ponderosa Lake on 4/9/17. This is well above average of the spring walleye samples we conduct. Catch per unit effort was 38. We sampled 38 walleye per hour. We average around 20 walleye per hour. Walleye sampled in 2017 ranged from 15-29 inches in length. The length frequency histogram provided below shows the size distribution of walleye sampled in 2017.

Ponderosa Lake Walleye Size Distribution
2017



The histogram shows a size-structure of better than average sized walleye for a Midwest lake. Average size of walleye sampled was over 20 inches in length. That is very impressive on a fall sample, but is more impressive for a spring sample in which 75% of the walleye sampled were male, who do not grow as large as the females. Most walleye sampled were between 18-22 inches in length. Walleye sampled were in very good condition with an average relative weight (WR) of 102. WR is a condition factor determined by comparing a national average of fish species' lengths and weights to individual fish found in a specific lake. The Midwest average WR for walleye is 95.

Walleye

55 walleye were sampled between 15 and 29 inches in length. This is a good indication of a healthy walleye population. Also sampling 4 walleye over 6 pounds indicates that the walleye are growing and foraging effectively. Of these 55 walleye, 45 were male and 10 were female. Every female but one sampled had a WR of over 105. One female had already spawned. The 45 male walleye were in very good condition with an average WR of 99. Walleye can continue to be a “bonus” fish in Ponderosa Lake, and as long as larger walleye are released, the lake will produce an occasional “trophy” walleye (>10 pounds).

Proportional Stock Densities and Relative Stock Densities

Proportional stock density (PSD) and relative stock density (RSD) are classifications used to quantify and qualify lengths of all fish in a single species (i.e. all largemouth bass sampled in a lake). RSD places size classes of fish into five categories: stock, quality, preferred, memorable, and trophy. Each of these categories has its own range of size according to the fish species being analyzed. Since RSD values are a percentage, they always add up to 100 for each species. These groups are created from percentages of world record fish.

Walleye RSD Categories

<i><u>Category</u></i>	<i><u>Fish Length</u></i>
Stock (S)	greater than 10 inches
Quality (Q)	greater than 15 inches
Preferred (P)	greater than 20 inches
Memorable (M)	greater than 25 inches
Trophy (T)	greater than 30 inches

RSD calculations for walleye in Ponderosa Lake are charted on page 4:

RSD Category	RSD Value 2017	2017 Mean WR
S-Q (10-15 inches)	0	0
Q-P (15-20 inches)	66	99
P-M (20-25 inches)	29	103
M-T (25-30 inches)	5	110
T (over 30 inches)	0	0

The S-Q range (10-15 inches) RSD value is 0. This means that out of all the walleye sampled in Ponderosa Lake over 10 inches in length in spring 2017, none were between 10-15 inches in length. Sampling in the spring when the walleye are looking to spawn, is the reason we did sample more walleye less than 15 inches in length. The small fish are not sexually mature. 66% of the walleye population sampled in spring 2017 are between 15-20 inches. Most of these fish are 18 to 20 inches in length. The P-M range (20-25 inches) RSD value is 29. These fish were in very good condition with an average WR of 103. The 3 walleye sampled over 25 inches in length were all gravid females, and were in excellent condition.

This is a very impressive walleye size structure. Having 34% of the walleye sampled over 20 inches in length indicates both good growth rates and a pretty good balance of stocking of walleyes vs. angler harvest and natural mortality.

2017 Fishing Forecast

Walleye: Walleye fishing should be very good. We sampled walleye from 1.5 to 9.5 pounds. 40 of the 55 walleye sampled were over 18 inches in length. Spawning will be over by mid-April and by mid-May the walleye will be actively seeking food. As the crappie come up to spawn, the walleye will follow. Throwing a larger swimbait/crankbait will produce some nice walleye. The larger walleye we sampled had mouths the size of softballs. Anytime you can fish the windward side of the bank, those walleye will be more active and easier to catch.

Management Recommendations

To keep Ponderosa Lake a quality fishery the following recommendations should be implemented:

- Whatever you have been doing with walleye stocking keep it up. I would keep current size and numbers the same. The current walleye population is very balanced for the amount of food available in the lake.
- Implement an 16-20 inch slot limit on walleye. Allow the harvest of 3 walleye per day per lot in this slot. 70% of walleye sampled were in this slot. Smaller walleye and larger walleye should be released. Do not feel guilty about keeping a few of these fish in the slot. This will allow the remaining walleye to grow.
- Please do not try to better the fishery with any additional fish stockings. The game fish present in Ponderosa Lake are all thriving. The introduction of any additional species will do nothing but negatively impact the existing fishery.

Farmers National Company has enjoyed working with Ponderosa Lake on your aquatic resource. If the recommendations in this report are followed, the lake will continue as a quality fishery. **This is one of the best overall fisheries I manage.** If anyone has any additional questions regarding this report or any other aquatic questions, please do not hesitate to call.

Respectfully submitted April 19, 2017.

Aaron Klusmire

Fisheries Biologist