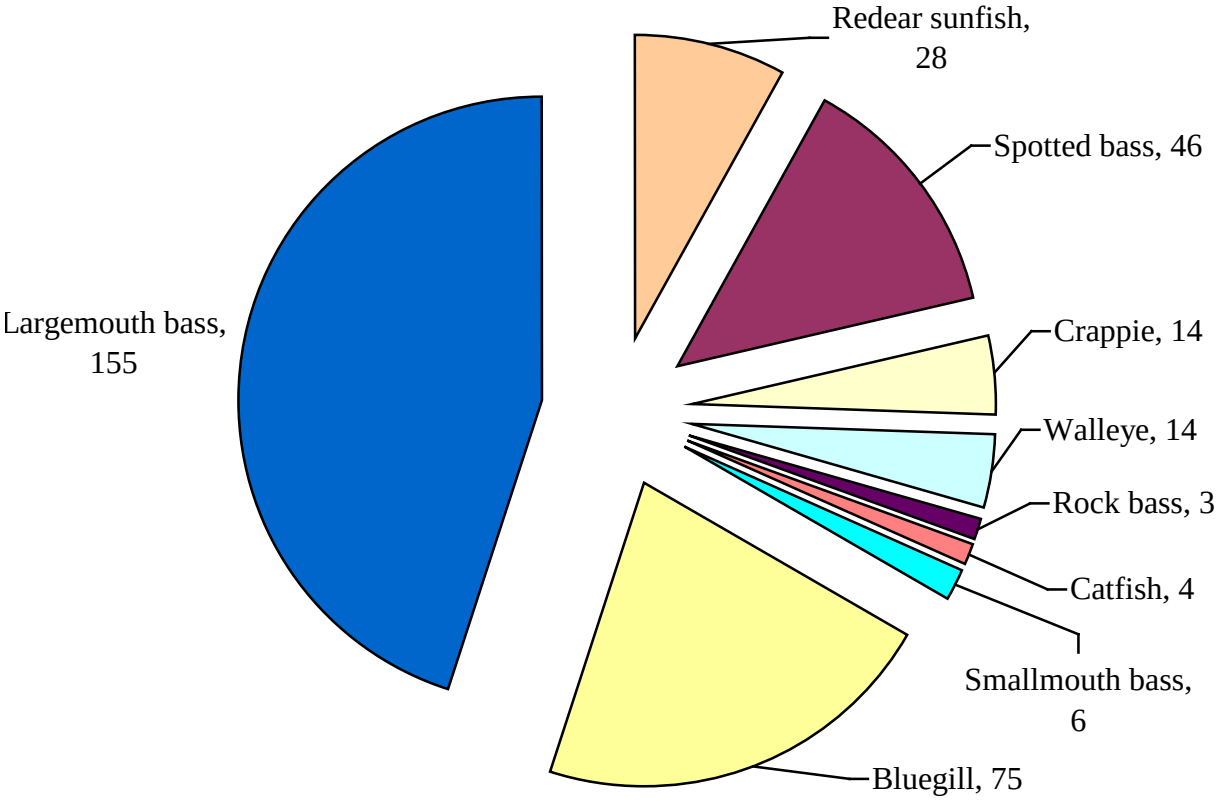
North Fork Pound Lake
Fisheries Management Report 2014

North Fork of Pound Lake is a 154-acre reservoir located in Wise County. The lake was formed in 1966. North Fork has a shoreline length of 13.5 miles, a maximum depth of 55 feet and an average depth of 19 feet. The area surrounding the lake is almost completely forested. Some mature oak and hemlock stands are visible, and poplar trees now stand where mountain families once raised corn on steep hillsides. The U.S. Forest Service now owns most of the land surrounding the lake. The dam is owned and operated by the U.S. Army Corps of Engineers.

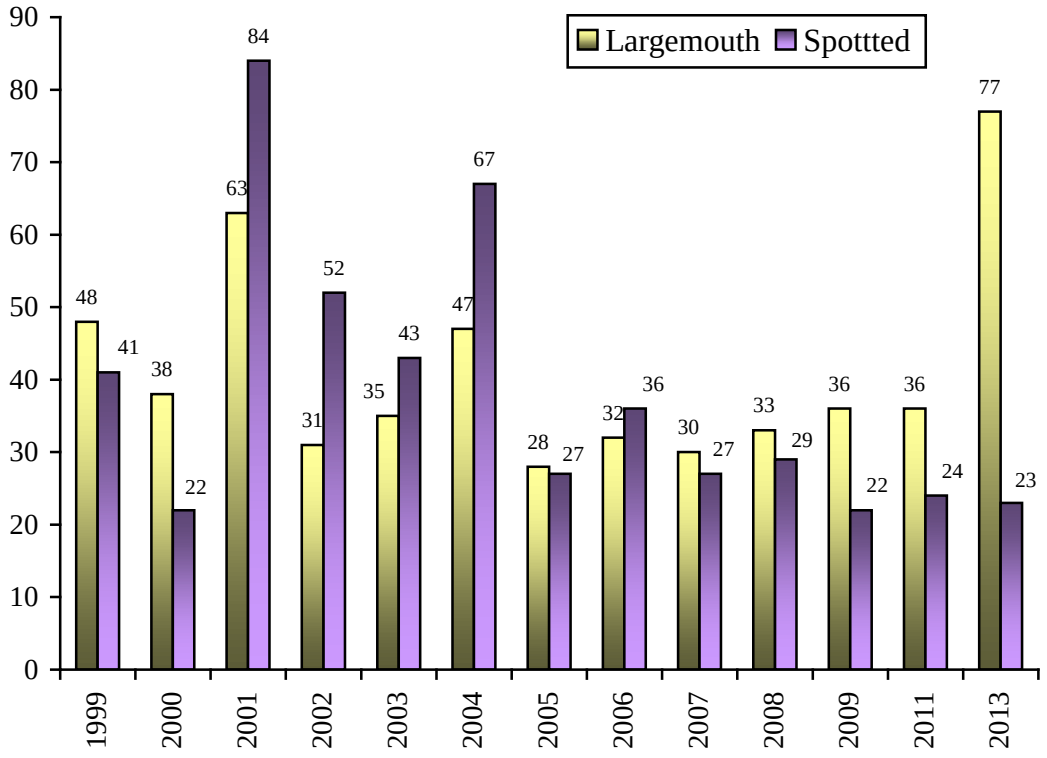
The lake supports a diverse assemblage of fish species. Largemouth, smallmouth and spotted bass are available. Bluegill, black and white crappie, rock bass, walleye, musky, channel catfish, flathead catfish, bullheads and carp are also present. The primary forage fishes are alewives and gizzard shad, which were stocked in the late 1990's. The Department stocked alewives in 1997, and the gizzard shad originated from an anonymous source. The following chart graphically displays the fish species and numbers collected by biologist in 2013 samples.



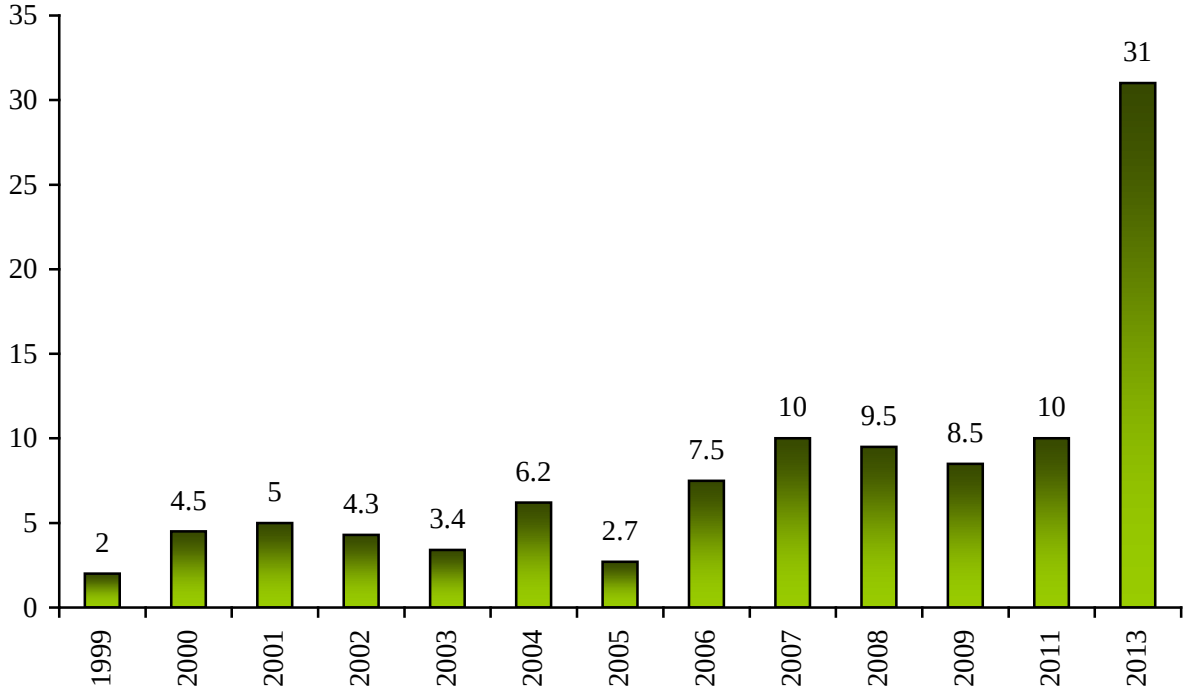
In order to provide quality fishing opportunities, fish populations need to offer both abundance and good size structure. Fish abundance is measured in terms of how many fish are collected per hour of electrofishing or per net night of sampling. Size structure is measured by looking at the proportion of adult fish in the sample that are larger than a given size. For example, we consider the proportion of adult largemouth larger than 15 inches, or the proportion of adult black crappie that are over 10 inches. Catch rates and size structure data provide a standardized means of comparing this year's fish sample to previous years' catch, as well as to the samples collected at other lakes. Size structure measures give information about the sizes of fish available in the population. This may not match what you see while fishing, since you might be using gear or techniques that target a particular size range, while sampling gear tends to collect small and average-sized fish. It is likely that you will catch fish larger than those collected by sampling. The data we collect are best used to track overall trends in fish populations through time.

Black Bass

Relative abundance, the number of fish collected per hour of sampling, varies from year to year. The 2013 sample produced 155 largemouth and 46 spotted bass. Catch rates were 77 largemouth and 23 spotted bass per hour of sampling. Black bass catch rates have been lower at Pound Lake since 2005. The trend suggests that relative abundance is stable at this lower level. The reduction in overall abundance appears to be the result of fewer young fish in the population. The following chart shows the catch rate trend since 1999 for largemouth and spotted bass per hour of electrofishing.

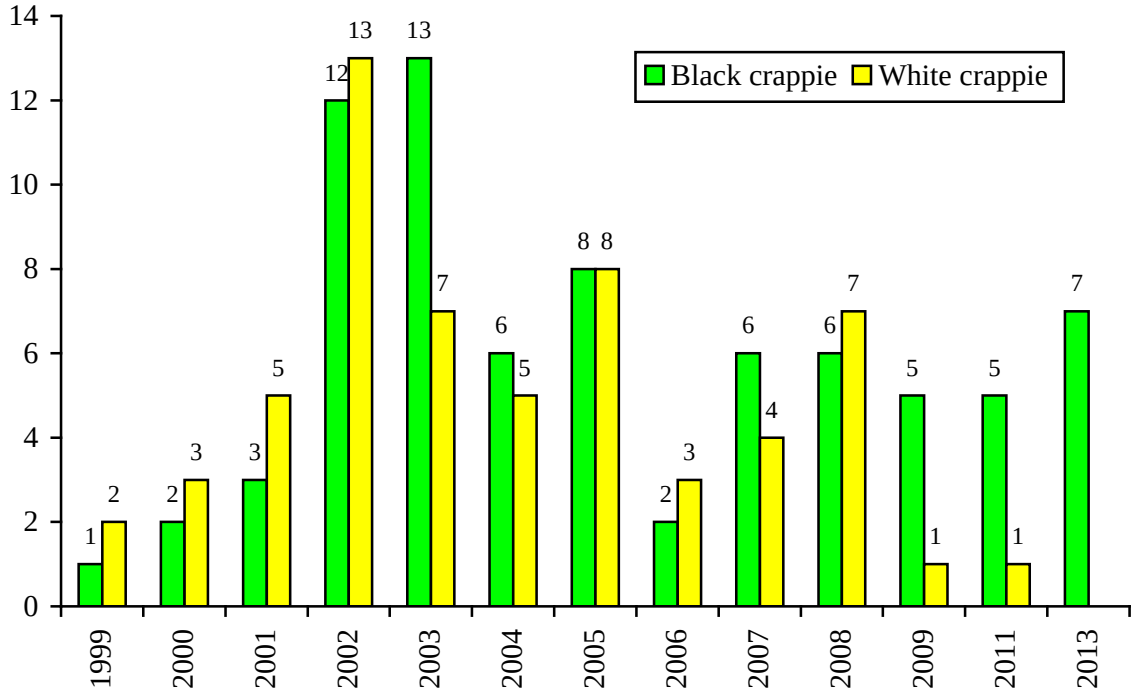


The size structure of the bass populations in North Fork Pound Lake has improved steadily since the 14 to 18-inch protective slot limit was established in 1999. The catch rate for preferred size largemouth bass (15 inches or greater) was much higher in recent samples compared to previous samples, as seen in the graph below. This is the result of the protective slot limit and the improved forage opportunities created by the presence of gizzard shad and alewives. The following graph shows the catch per hour of preferred size largemouth bass (15 inches or greater) collected electrofishing 1999-2013.

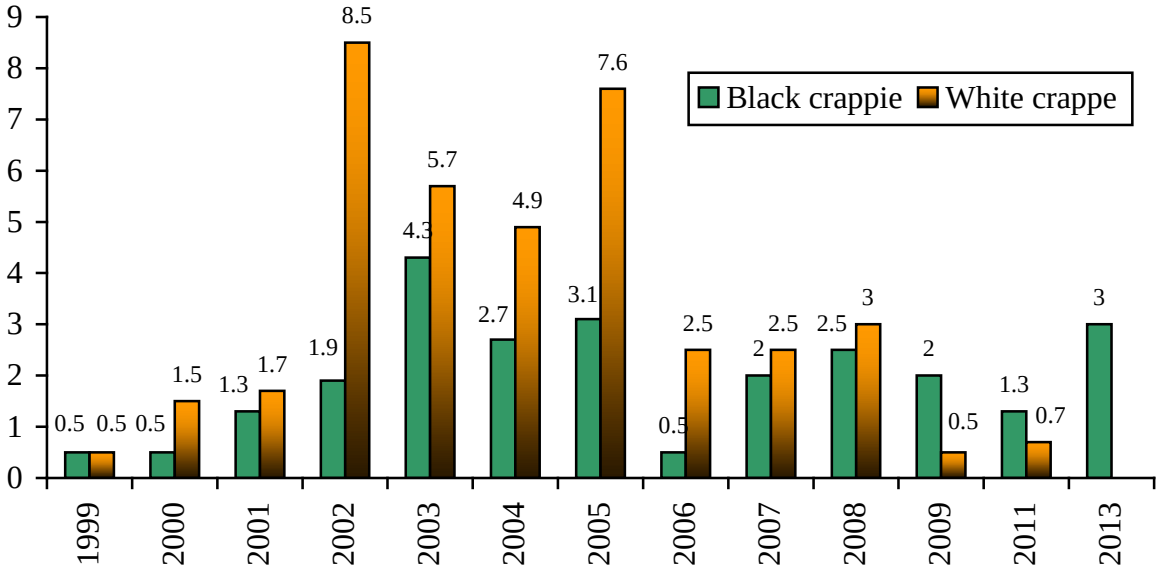


Crappie

The relative abundance of crappie populations varies considerably from year to year. Crappie populations are characterized by “boom and bust” trends in abundance. Some refer to this as population cycles. It is generally the result of inconsistent spawning success. When the crappie population has a really good spawn, that year class of fish will increase the population abundance and provide good fishing for several years. Poor spawning success creates missing year classes that have the opposite effect. This “boom and bust” pattern is evident in the sampling catch rates for crappie at Pound Lake, as seen below. The 10-inch minimize size limit should help stabilize the population fluctuation somewhat by keeping the good year classes of fish in the population a little longer. Recent habitat improvements may increase spawning success as well, but crappie are notorious for inconsistent recruitment. The following graph shows the catch of black and white crappie per hour of electrofishing from 1999-2013.

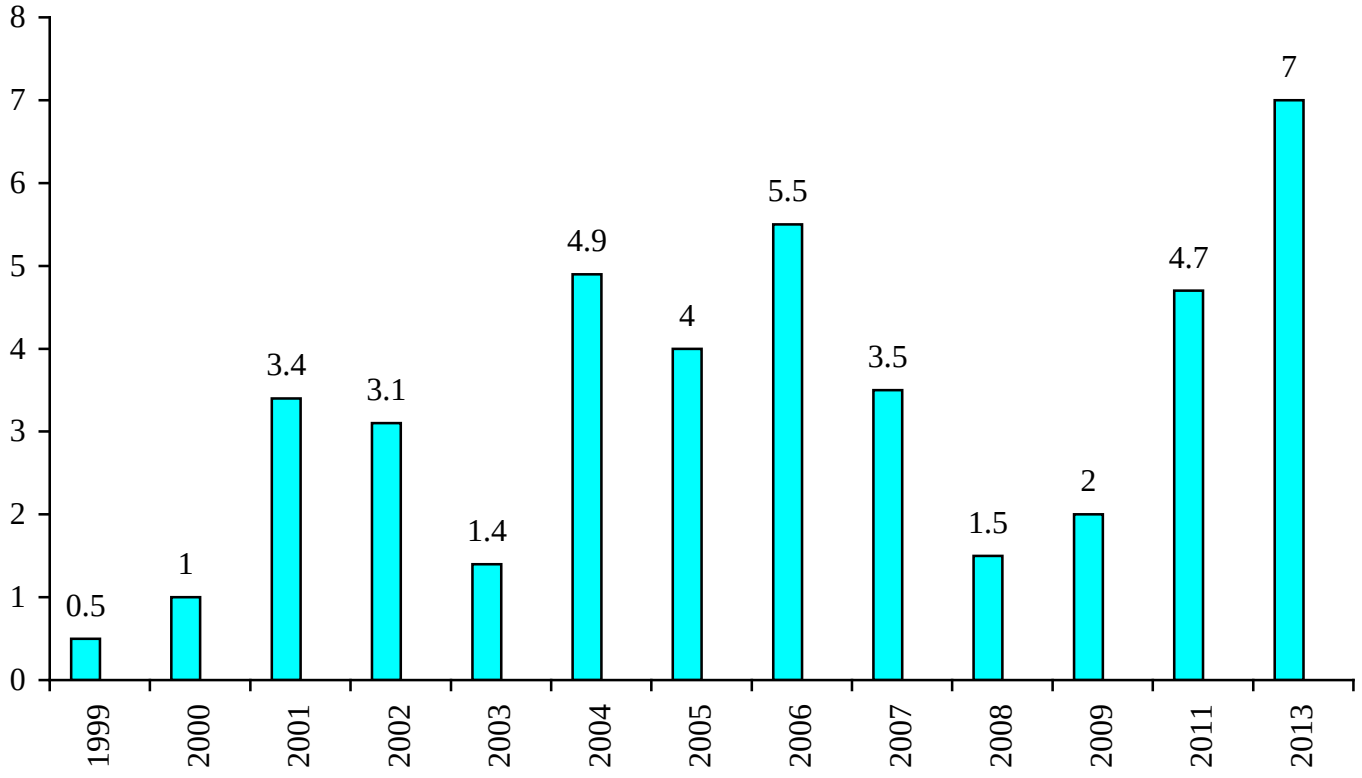


The crappie population in Pound Lake has good size structure. The number of preferred size crappie (10 inches or greater) follows the same general trends as population abundance. The abundance and sizes of crappie available should provide good fishing opportunities. Hopefully these fish will find suitable spawning conditions and the "boom" trends in population abundance will outnumber the "bust" years in the future. The following chart shows the number of preferred size crappie collected per hour of electrofishing in Pound Lake 1999-2013. Preferred size is 10 inches for black and white crappie.



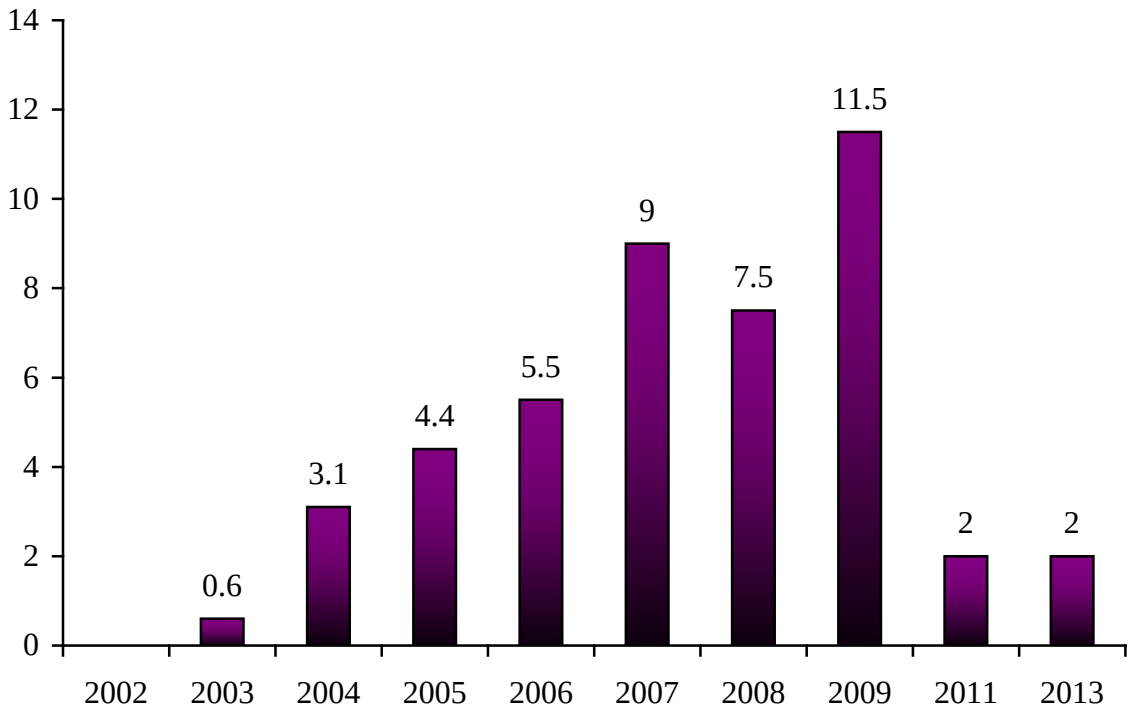
Walleye

The walleye population in Pound Lake is largely the result of fingerlings stocked from 1999 to 2004. Like other species, the electrofishing catch rates vary considerably from year to year. Compared to bass, walleyes are less likely to be associated with shoreline habitat. Daytime electrofishing may not always accurately represent the true population, because walleyes are very light sensitive. Bright sunlight combined with Pound Lake's clear water makes daytime sampling less successful. Biologists evaluated the performance of stocked walleyes from 2000 to 2004 in lakes across the state. Although the walleyes survived and grew well at Pound Lake, they did not produce the relative abundance of walleyes noted in some other impoundments, like Flannagan Reservoir. Because biologists only have a limited number of walleye to stock each year, the decision was made to stop stocking walleyes at Pound Lake in order to concentrate fish in lakes where they were most likely to produce the best populations. However, sampling from 2005 to 2007 indicated higher abundances than earlier samples. Pound Lake was added to the walleye stocking list again in 2007, and fingerlings were stocked in 2008. Pound Lake may not receive walleye fingerlings every year, but fingerlings will be stocked when available. These stockings should provide fishing opportunities for anglers interested in this challenging but tasty sport fish. The following chart shows walleye catch per hour from electrofishing 1999-2013.



Channel Catfish

In the fall of 2002, the Department drastically increased the average size of catfish stocked into small lakes. The catfish stocked since that time average 10 inches at the time of stocking. This program change has tremendously improved the channel catfish population at Pound Lake. The relative abundance of channel catfish, measured as fish collected per hour of spring electrofishing, has increased steadily since 2003 until 2011 when fewer channel catfish were collected as seen in the following graph.



The increased abundance of channel catfish has created a nice fishery. The average size of channel catfish collected is improving somewhat as older age classes from the initial years of stocking reach their growth potential.

Bluegill

Bluegill abundance and size structure has declined in recent years. This could be the result of increased competition for food between bluegills and shad. There is still some good bluegill fishing to be had. In 2013 electrofishing samples bluegill were collected at a rate of 37 per hour and were the third most abundant fish species collected.

Fish Condition

Biologists calculate the relative weight of fish to determine if they are in good condition. Relative weight is basically a standardized weight for a fish of a certain length. A relative weight between 90 and 100 is very good. Any score over 100 is considered outstanding. A relative weight in the 70's or low 80's might indicate a lack of food or suitable thermal habitat.

Overall, the fish in Pound Lake are in decent to good condition. The average relative weight of largemouth bass in the 2013 samples was 90. Spotted bass relative weight averaged 96. Black crappie were in fair condition, with average relative weights of 84. Walleye relative weight averaged 88.

In summary, black bass should offer decent catch rates, and size structure is good. The number of quality-sized bass has increased steadily in the last few samples. The black crappie and bluegill populations are abundant and should provide good fishing opportunity. The walleye population is fair and future stockings should improve abundance over the next few years.

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