

Walleye Fishing in the Hoosier State

A product of fish management and angler support

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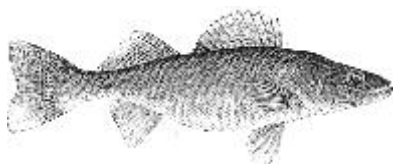
Introduction

Although walleye are thought to be native to Indiana, distribution was limited. One of the earliest recorded stockings was made in 1891, and during the 1930's, 15 to 20 million fry were stocked annually. Modern day management began with the resumption of walleye stocking in 1970. Today, Indiana's fisheries section annually stocks 12 impoundments, six natural lakes and two rivers with walleye or hybrid walleye

(Table 1). Total acres stocked with walleye or hybrid walleye is 34,171.

Natural reproduction is very limited and contributes little to walleye fishing in the state. Fisheries biologists have focused on providing fishing opportunities for this popular fish throughout the state, increasing sizes and numbers of walleye caught and improving angler satisfaction with walleye fishing.

Indiana's walleye record (14 lbs 4 oz) was set in the 70s and it is shared by two anglers. One of the record-setters came from the Kankakee River; the other from the Tippecanoe River.



Brookville Reservoir

Brookville provides some of Indiana's best walleye fishing. Walleye harvest, documented through creel surveys conducted before the 14 inch minimum length limit was put in place, ranged from 4,500 per year to 15,100 and averaged nearly 8,100 per year. Most harvested walleye were 14-15 inches long but some 24-29 inch walleye were occasionally caught.

In 2000, fewer walleye were caught but they were a little larger, averaging 16.2 inches. The number of walleye harvested was 2,509 and 1,848 were caught and released. The 14 inch size limit and weak year classes since 1996 are reasons for smaller catches in 2000.

Annual fry stockings have exceeded 10 million for 15 consecutive years.

Brookville is a 5,260-acre flood control reservoir located in Franklin and Union counties on Highway 101 approximately 30 miles south of Richmond and 50 miles northwest of Cincinnati. A fee is charged to launch boats but there are no restrictions on outboard motor size.

Monroe Reservoir

Monroe has developed into one of the best walleye fisheries in the state. In 1994, 3,816 walleye were harvested and 6,400 more were caught and released. Average length was 16.6 inches while the largest walleye harvested

measured 28½ inches long. Over 7,000 pounds of walleye were harvested.

As expected, catch and harvest numbers were lower in 2000 with the 14 inch size limit in place. Fishing was still good as 2,203 walleye were harvested and 5,198 were caught and released. Average length of harvested walleye was 16.8 inches. The largest walleye measured by the creel clerk was 26 inches. About 6% of the anglers fishing Monroe fish for walleye.

The reservoir has been stocked with 1½ inch long fingerlings the past 13 years at a density averaging 36 per acre.

Monroe, the state's largest reservoir at 10,750 acres, is accessible from State Roads 37, 46 and 50. It is located in Brown and Monroe counties about 50 miles south of Indianapolis and 10 miles southeast of Bloomington. There is a fee to launch boats but there is no limit on outboard motor size.

Cagle's Mill Reservoir

This 1,400-acre flood control reservoir, located in Putnam and Owen counties off

I-70 about halfway between Indianapolis and Terre Haute, has been stocked with 1.3- 4.3 million fry 11 consecutive years (1992-2002) to utilize the large gizzard shad population. In 2000, both fry and fingerlings were stocked in Cagle's Mill. Stocking density in '01 and '02 averaged 2.8 million fry.

In 1996, 1,742 walleye weighing 2,106 pounds were harvested at Cagle's Mill. These fish ranged from 8- 21½ inches long and averaged 15.2 inches. An additional 2,563 walleye were caught and released. Ten percent of the anglers interviewed during the 1996 creel survey indicated they fished for walleye or walleye in combination with another species.

Anglers harvested 558 walleye weighing 952 pounds from Cagle's Mill in 2001. These fish ranged from 11 to 26½ inches long and

averaged 16 inches. An additional 4,656 walleye were caught and released. Best fishing was in May and July. In 2001, 14% of the fishermen interviewed stated they were fishing for walleye or walleye and another species.

A daily or annual fee is charged to launch boats and outboard motors are permitted.

Kokomo Reservoir

This 484-acre impoundment is located three miles east of Kokomo in Howard County. Boat launching is free and outboard motors are permitted.

From 1989 through 1997, the reservoir was stocked with saugeye, a walleye x sauger cross. Concerns for the genetic integrity of native sauger downstream of Kokomo Reservoir prompted fisheries biologists to change the stocking strategy from hybrid walleye to walleye. Starting in 1998, Kokomo has been stocked each year with walleye fingerlings at 50 per acre.

The most recent measure of fish harvest was in 1996 when a seven month long creel survey was conducted. An estimated 821 hybrid walleye were harvested and 790 were caught and released. Average length was 15.3 inches and highest harvest occurred in May (63%) followed by June (17%).

An updated measure of fish harvest, fishing pressure and angler interest in walleye fishing at Kokomo is planned for 2003.

Clear Lake

Clear Lake is an 800-acre natural lake located five miles east of Fremont off State Road 120 in Steuben County. There is a public access site on the east side of the lake and outboard motors are permitted. The lake has been stocked 19 consecutive years (1984 through 2002) with 1½ long fingerlings.

Stocking density since 1988 has averaged 108 fingerlings/acre.

A creel survey was conducted April-October, 2001 to measure walleye harvest five years after implementing the 14 inch minimum length limit. Walleye harvest totaled 613 with an additional 781 caught and released. These fish ranged in length from 12 to 21 inches and averaged 16.1 inches. Twelve species were observed in the catches and walleye ranked number one by weight. Over half of the walleye harvested were 16 inches or longer. Walleye harvest was highest at Clear Lake in July followed by August.



Lake Maxinkuckee

Maxinkuckee, the state's second largest natural lake at 1,854 acres, is located at the town of Culver near State Roads 10 and 17 in Marshall County. Public access is free but parking spaces are limited. Outboard motors are permitted. Maxinkuckee has been stocked with 1½ inch fingerlings (100/acre) the last 12 years (1991 through 2002).

Fewer walleyes were harvested in 1999 (1,352) compared to 1996 (3,198) but that was expected as small fish were protected by the 14 inch minimum length limit. However, average size of harvested walleye (17.2 inches) was the largest documented in six years of measuring angler catches. In addition to the number of walleye harvested, 1,646 were caught and released. Walleye were targeted by 35% of the anglers interviewed. This popular species comprised 27% of the harvest by number and ranked second to bluegill. 93% of the anglers interviewed supported the 14 inch size limit.

**Bill LaVigne, well known natural lake angler,
with a 10 lb 4 oz walleye**

Bass Lake

A 6½ month long creel survey was conducted from mid-April through October, 1996. Anglers harvested 1,163 walleye and caught and released 431. Walleye made up 14% of the harvest by number and 21% by weight. July was the best month for catching walleye at Bass Lake. Most of the walleyes harvested were small, averaging 14 inches. 13% of Bass Lake's anglers targeted walleye.

The lake has been stocked with fry 14 of the past 15 years. No walleye were stocked in 2001 in an effort to reduce food competition and improve growth rates. Stocking density has also been reduced from 3,000 fry per acre to 1,500.

This shallow 1,345-acre natural lake is located about six miles south of Knox off U.S. 35 and State Road 10 in Starke County. There is a public access site on the lake and outboard motors are permitted.

Pike Lake

The lake was originally stocked with hybrid walleye at about 50 per acre and good fishing developed. Starting in 1996, 1½ inch long walleye fingerlings were stocked instead of hybrids to see if they would provide the same level of fishing as the hybrids.

The 2000 creel survey was conducted April-September. Eight species were harvested and walleye ranked second (273). An additional 1,314 walleye were caught and released and highest catches occurred in April and May. Average size of harvested walleye was 15 inches. Thirty-one percent of the anglers interviewed fished for walleye and 99 % of them supported the size limit.

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Warsaw in Kosciusko County. The lake is open to public fishing and outboard motors are permitted.

Andrew Snow, biologist aide,
with a large walleye netted at Sylvan Lake

Sullivan Lake

This 461-acre impoundment is located in Sullivan County east of Sullivan, Indiana. There is a small fee charged for access and outboard motors are permitted.

A relatively large population of hybrid walleye developed at Sullivan following 12 consecutive years of stocking fingerlings. A 1988 creel survey documented the harvest of 1,562 hybrid walleye at Sullivan Lake (3.3 per acre) that averaged 15½ inches in length.

Starting in 1995, Sullivan Lake was stocked with walleye instead of hybrids to see if walleye could provide the same high quality fishing that the hybrids provided. After four years of stocking walleye fingerlings, a creel survey was conducted to evaluate the fishery. Only 257 walleye were harvested in 1998 compared to 1,562 hybrid walleye in 1988. Not only were fewer fish harvested, they averaged two inches smaller than the hybrids did in 1988.

In an effort to turn the fishery around, biologists went back to stocking hybrid walleye starting in 1999. About 39,000 fingerlings have been stocked each of the last four years (1999-2002). In 2002, the 14 inch minimum size limit was put in place to protect small hybrids from harvest.

A creel survey is planned for 2003 to evaluate the Sullivan Lake hybrid walleye fishery.

Pretty Lake

This small natural lake (184 acres) has been stocked with walleye fingerlings 10 consecutive

years at 100/acre.

One hundred fifty walleye ranging from 10½ - 25 inches in length were harvested during a mid-April through September creel survey in 1996. An additional 28 walleye were caught and released. The 14 inch size limit was only in place for about one month of the survey. Average length of harvested walleye was 16.9 inches. Harvest was highest in June and July. Eleven percent of the anglers were fishing specifically for walleye and another 8% fished for walleye in combination with another species.

Take State Road 3 about three miles north of South Milford, then go East on CR 500 S to reach Pretty Lake. The public access site is located on the southwest side of the lake. There is no charge to launch boats but there is a 10 mph speed limit on Pretty Lake.

Huntingburg Lake

Huntingburg Lake, is a 188 acre impoundment located about two miles west of the town of Huntingburg on State Road 264. The lake has been stocked with hybrid walleye (saugeye) fingerlings 14 of the past 15 years at 50 or more per acre.

During a seven month creel survey in 1997, anglers harvested 51 saugeye that averaged 18.5 inches in length. They caught and released 691. The largest saugeye taken from Huntingburg weighed over 8 pounds. Five percent of the anglers interviewed during the creel survey fished for saugeye.

Lake-of-the-Woods

Lake-of-the-Woods, located southwest of Bremen in Marshall County, is a 416 acre natural lake. A state-owned public access site is located on the southwest shore. There is no fee to launch boats and outboard motors are permitted.

A creel survey was conducted April through September, 2001 to evaluate the walleye fishery. The lake had been stocked with 1½ inch long walleye fingerlings nine consecutive years, 1993-2001.

Walleye ranked third in the anglers' catches behind white bass and crappie. Walleye comprised 19% of the total fish harvest. 358 walleye were harvested and 1,703 were caught and released. Highest harvest occurred in April but April, May and June were good months for catch and release fishing. 35% of the anglers interviewed were fishing for walleye and 94% supported the 14 inch size limit.

Eagle Creek Reservoir, Prairie Creek Reservoir and Summit Lake

Walleye fisheries at these three impoundments are in the "developing" stage. Eagle Creek has been stocked six consecutive years, mostly with fry; Summit Lake four years mostly with 1½ inch long fingerlings and Prairie Creek two years with fingerlings. Based on fall young-of-the-year, and fish community survey catches, fishable walleye populations are developing at each of these waters.

Eagle Creek is a 1,350 acre water supply impoundment northwest of Indianapolis, Prairie Creek is a 1,252 acre water supply for the city of Muncie and Summit Lake is a 600 acre impoundment in Summit Lake State Park north of New Castle.

Tailwater Fishing

Outstanding walleye fishing has developed below the dams at Monroe, Cagle's Mill, Salamonie and Mississinewa Reservoirs; and Freeman Lake.

Large concentrations of walleye occur at the tailwaters from March into May, depending on

seasonal water temperatures and flows. Most of the fish are 15-20 inches long but some up to 29 inches long have been observed. The tailwaters provide anglers who don't have a boat a good opportunity to catch walleye.

Some of the largest walleye caught in Indiana each year come from tailwaters.

Mississinewa and Salamonie Tailwaters

Anglers caught 4,270 walleye at the Mississinewa tailwater in April and May 1997. They ranged in length from 14-25 inches. Average length was 15.2 inches. At the Salamonie tailwater, the catch consisted of 782 walleye ranging in length from 12½-28 inches. These fish averaged 17.3 inches. 86% of the anglers interviewed supported the 14 inch size limit.

River Walleye

Indiana's fishery biologists believe there are few potential walleye lakes remaining in the state. Most lakes thought to be capable of providing walleye fishing have already been stocked and evaluated. Although walleye fishing in natural lakes and impoundments may be improved in the future through changes in fishing regulations and stocking strategies, rivers may represent the best opportunities to significantly increase walleye fishing in the Hoosier state.

Stocking has produced good walleye fishing in two impoundments on the St. Joseph River. The impoundment above the Elkhart Dam has been stocked with 1½ inch long fingerlings eight consecutive years (1995-2002). In 1996, during the early years of the fishery, anglers harvested 89 walleye averaging 15.7 inches in length from the impoundment. An additional 129 walleye were caught and released. May was the best month to catch walleye in the impoundment.

Fishing was also good in the tailwater below Elkhart Dam where 148 walleye were harvested and 575 were caught and released. 63% of walleye harvest at the tailwater occurred in April.

In 1999, walleye again ranked first in angler catches at Elkhart tailwater. 205 walleye weighing 205 pounds were harvested. These fish



from 13½-20 inches long and averaged 16 inches. The number of walleye caught and released totaled 1,122. 57% of the anglers interviewed were fishing for walleye. Over 80% of the anglers supported the 15 inch minimum length limit.

The Twin Branch impoundment has been stocked five consecutive years, 1998-2002. A creel survey to measure walleye catches and attitudes about the walleye program has not been conducted at Twin Branch. However, large catches of young-of-the-year walleye during fall electrofishing, and reports from anglers, indicate the population is developing well.

1999, anglers ranked the spring catch the first at Elkhart Dam. The walleye harvest was 280 pounds. These fish ranged

Neil Ledet, fisheries biologist, measures a St. Joseph River walleye collected during early spring sampling

This hypothesis is what led to the “large fingerling” walleye research.

Anglers responding to a statewide survey listed walleye #1 when asked, “Which species of fish do you want the Division of Fish and Wildlife to stock?”

Large Walleye Fingerling Research

When it comes to stocking fish, bigger is usually better. However, production costs must be weighed against angling benefits.

In 2001, Crooked Lake (Steuben Co.), Winona Lake (Kosciusko Co.) and Sylvan Lake (Noble Co.) were stocked with 6-8 inch long walleye. Stocking density was 20 per acre at Sylvan and Winona lakes and 10 per acre at Crooked. Plans are to stock these lakes three consecutive years to see if the large fingerlings provide fishing where small fingerlings failed.

Fry are usually stocked at 2,000-3,000 per acre and the 1½ inch long fingerlings at 100/acre. For comparative purposes, four fry can be produced for a penny and it cost a little over six cents to produce one 1½ inch fingerling. Each 6-8 inch walleye cost \$1.45.

The large fingerlings required for this research have been purchased from a private hatchery as Indiana currently does not have the rearing ponds needed to grow walleye for the entire summer and still meet other fish production goals.

Sampling will be conducted annually to evaluate each of the three experimental stockings.

Prior to 2001, all walleye fishing provided by the DFW has been done with multiple-year stockings of fry or 1½ inch long fingerlings. There have been some waters where biologists felt that fishable walleye populations would have developed if larger fingerlings had been stocked.

Sauger Introductions

Biologists are also working to establish self sustaining sauger populations in the East and West Forks of the White River. Sauger are popular members of the perch family of fishes, along with walleye, yellow perch and many species of darters. They are native to some of Indiana’s larger rivers.

The E.F. White River was stocked with sauger fingerlings six consecutive years, 1995-2000.

Following the devastating fish kill on the W.F. White River in 1999, the first of three planned sauger stockings was completed in June 2002. Some sampling has already been done and more is scheduled to evaluate these stockings. Again, the goal is to restore naturally reproducing sauger populations in two rivers.

Walleye Size Limit

The fisheries section proposed a 14-inch minimum length limit for walleye at three public meetings in March 1996. Anglers had been asking for a size limit and no one opposed the proposal. Justification for the size limit included:

1. Walleye have greater growth potential than was being realized at most stocked waters.
2. Walleye fishing in Indiana is hatchery

dependent. It is too costly to stock fish and have them harvested during their first and second summer when they have the capability to live longer and grow larger.

3. Nearly 50% of the respondents to the 1994 Statewide Angler Survey supported or strongly supported a minimum length limit for walleye. Only 15% opposed a size limit and 17% were neutral.

The proposed 14-inch minimum length limit for walleye went into effect in August 1996 and it applies to all waters except the St. Joseph River (St. Joseph & Elkhart Counties) and Ohio River.

There is a 15-inch minimum length limit on

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Joseph River to be consistent with Michigan's 15 inch size limit. The St. Joseph River originates in Michigan, flows through parts of Indiana, and then returns to Michigan. One size limit throughout the course of the river makes it easier for anglers to understand and comply with.

The walleye size limit has now been in place for six growing seasons and biologists are starting to compare population structure (numbers, sizes, weights and growth rates) before and after size limit implementation.

Indiana's daily bag limit is six for any combination of walleye, sauger or saugeye. There is no closed season for walleye, sauger or saugeye.

Hatchery Production and Stocking

Strategies

Eggs for Indiana's walleye program are taken from mature fish collected each April at Brookville Reservoir. The goal is 40 million "green" eggs. These eggs will provide about 22 million walleye fry, 1.2 million 1½ inch walleye fingerlings and 40,000 hybrid walleye fingerlings. Walleye stocking densities at lakes are 2,000-3,000 fry/acre or 100 fingerlings/acre. Hybrid walleye and river walleye stocking densities are 50 fingerlings per acre.

Hatchery Manager Dan Jessup checks walleye eggs at Cikana State Fish Hatchery

Due to concerns about fish genetics, walleye for stocking the St. Joseph River are obtained from Michigan as the St. Joseph River originates in Michigan, then flows south into Indiana before entering Michigan again.

