

Where Did The Pickerel Go?

Every spring, over the span of more than four decades in the mid 20th century, the Mississippi River rapids at Innisville drew thousands of spectators to witness what was said to be “the most remarkable demonstration of mass fish migration in the world”.¹

In the space of five to 10 days in mid April, when the water temperature reached 4.5C (40F), the entire pickerel stock of Mississippi Lake would climb the river rapids in a mad headlong rush to the upstream spawning beds. The daily exodus would begin just after sundown, turning the river into a foaming, seething mass of fish. As far as the eye could see, and for seven miles upstream to Ferguson Falls, the river filled with fish from bank to bank. As spectators played flashlights and automobile headlights over the water, uncountable fish eyes sparkled beneath the surface like sequins on black velvet. A hundred thousand fins sliced the shallow water as the fish struggled against a 20 mph (32 kph) current, threading their way upstream, driven by instinct to the river’s shallow gravel beds.²

Every night of the run, visitors from across Eastern Ontario and parts of the United States crowded the bridge rails, roadways and fields along the riverside to witness one of nature’s most remarkable spectacles. During the peak of the run, the population of Innisville was multiplied more than 100-fold. For a week, highway traffic was so heavy a half dozen police officers were necessary to direct the visitor-packed cars back-and-forth across the old single-lane bridge. As the pickerel could be easily speared, or even scooped from the shallow water by hand, additional game wardens from neighboring counties, together with volunteers from local fish and game clubs, patrolled the riverbanks ensuring the fish made safe passage. In 1950 a designated viewing area was established to better control the crowds and protect the fish.



The pickerel, a species of perch, is known by various names: the dore, pike perch, yellow pike, yellow pickerel or walleye. The name walleye, preferred by Americans, alludes to the milky, blind appearance of its eyes, the same physiology that accounts for the flashing reflection of its eyes in the tourists’ flashlights. Their body color is usually dark yellow, and the scales coarse and rasp-like to the hands. Adult pickerel measure 12 to 20 inches (30-50 cm) in length and weigh from three to 12 pounds (1.5-5.5 kg.). They are considered a culinary delicacy.

Above the rapids, mature females laid from 35,000 to 60,000 eggs each, depositing them at random on gravel substrata, mainly in water less than two feet (60 cm) in depth. When they completed spawning, the fish returned to Mississippi Lake, leaving the river’s rocks and vegetation festooned with clusters of eggs. The fry hatched seven to 25 days later, depending upon water temperature. Mortality from egg to fingerling was very heavy, but for surviving fry, growth was rapid. From about one-half inch (1.25 cm), the males mature at two or three years old, females at four or five years. As a rule, the life span of a pickerel is about seven years.

¹ *Perth Courier*, April 19, 1951.

² A similar, though less spectacular, spawning run of suckers always preceded the pickerel upriver.

The pickerel that created the Innisville spawning phenomenon were, however, not native to Mississippi Lake or the Mississippi River system. They were introduced in the first decade of the 20th century.

Some accounts credit the arrival of pickerel in the Mississippi to Lanark County Fish and Game Warden John Herbert Phillips (1860-1939) of Smiths Falls and County Constable George Burke (1866-1937) of Perth who released 38 adult pickerel into either the Innisville Rapids or Bennet's Lake in 1910. If Phillips and Burke were truly the first to stock the Mississippi system, the date must be wrong. In May 1907 the *Perth Courier* reported that "*Some party or parties have been dynamiting pickerel and other fish in Bennett's Lake*".³ As Bennett's Lake flows into the Mississippi River via the Fall River, if there were pickerel in Bennette's Lake in 1907 it would seem likely there were also already pickerel in Mississippi Lake by that date. The following year (1908), another *Courier* item mentions that "*T. B. Caldwell⁴, MP, delivered a barrel of 100,000 fingerlings to Mississippi Lake from the government hatchery at Ottawa*".⁵

Whenever it began, by 1914 stocking efforts were showing results. "*The Mississippi River seems to be becoming well stocked with pickerel; they are taken quite easily, whereas a year or two ago, it was difficult to catch one*"⁶.

Stocking Mississippi Lake with pickerel fingerlings went on through the 1920s: 1921, 100,000; 1925, 200,000; 1927, 100,000. In 1931 "*The waters of the Mississippi were stocked with 250,000 pickerel fry which were deposited by Mr. J. W. Patterson⁷ to whom they were sent. There were five cans in all, three of which were put into the water at Squaw Point⁸ and two cans at Innisville*".⁹



Mississippi Lake and River

By the 1940s Mississippi Lake offered some remarkable sport fishing. "*Four folks caught 17 pickerel in three hours time, Sunday a.m. One weighed 4 ½ lbs ...*"¹⁰ and at about the same time, the amazing mass spawning run at the Innisville rapids began to draw wide attention.

³ *Perth Courier*, May 24, 1907.

⁴ Thomas Boyd Caldwell (1856-1932), MP for Lanark 1904-1908.

⁵ *Perth Courier*, June 12, 1908.

⁶ *Perth Courier*, March 6, 1914.

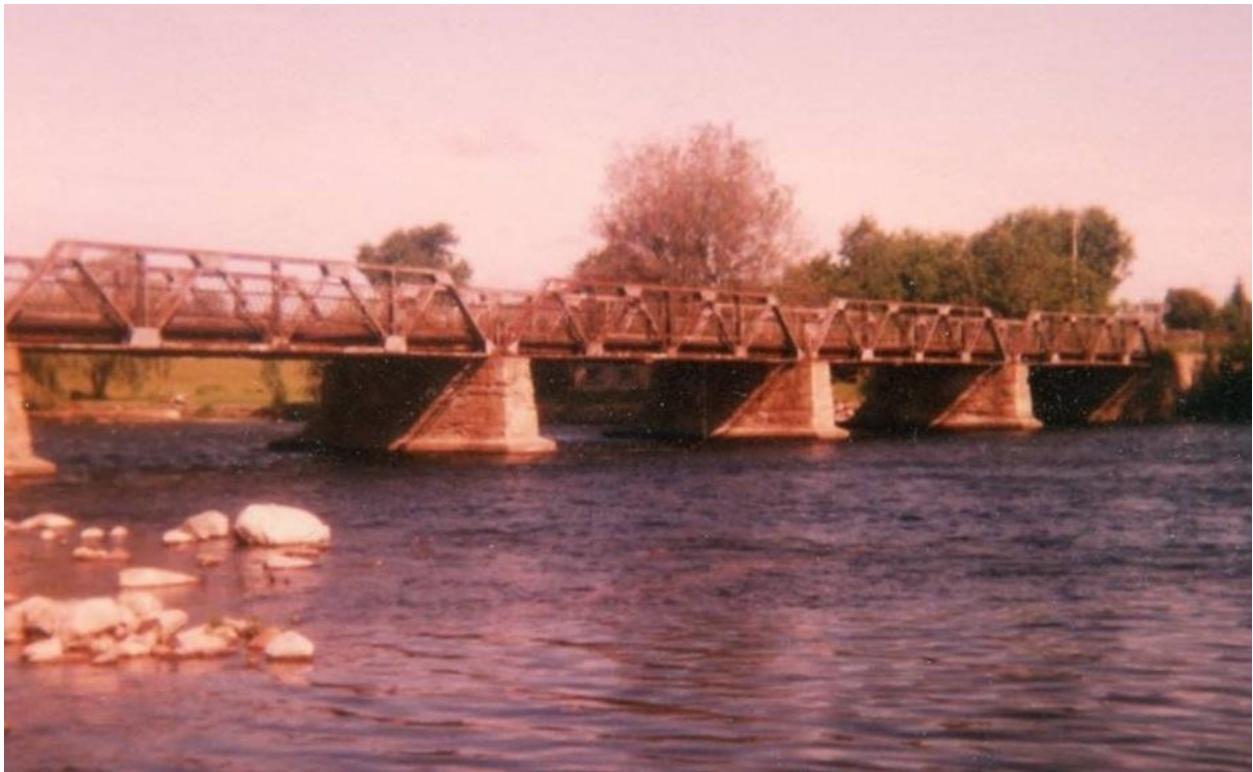
⁷ Joseph Wilson Patterson (1878-1961), proprietor of 'Patterson & Son Furniture and Undertaking' at Carleton Place and, apparently, a Fish & Game Club member.

⁸ Subsequently re-named Ikwe Point. Near Carleton Place.

⁹ *Carleton Place Canadian*, June 12, 1931.

¹⁰ *Perth Courier*, June 17, 1948.

Saturday night the rapids above the bridge at Innisville were jammed with fish for an estimated distance of seven miles ... At eight o'clock, an hour after sundown, the run began. Armed with flashlights spectators made their way carefully along the slanting bank. As a battery of lights played on the water, thousands of pinpoints of light reflected from the swift murky river. To unaccustomed eyes it was as though the reflection was that of the star-filled sky ... Then as eyes became accustomed to the light, the crowd saw tens of thousands of spawning fish, wriggling and fighting their way through the rapids. As far as the eye could see in the rays of powerful flashlights there was nothing but the gleam of fisheyes ... This was the result of 20 years of stocking the Mississippi Lake by the conservation club – and it was astonishing ...¹¹



The single-lane iron bridge, 1913-1958

By 1954 the spring run of Pickerel at Innisville had become so widely publicized that the crowds of spectators were joined by a National Film Board of Canada film crew “making movies of the fish under the glare of numerous floodlights”.¹²

¹¹ *Ottawa Journal*, April 1949.

¹² *Perth Courier*, April 1954.



Poaching, with spear and net, was a significant part of the pickerel spawning season from its earliest years. It was impossible for Lanark County's lone game warden to police all the streams and rivers where pickerel spawned each spring. The run through the Innisville rapids may have been the most spectacular and accessible, but pickerel also spawned along the upper Mississippi, the Clyde, the Fall, the Tay, and in the hundreds of creeks and streams flowing into those rivers. For many years, local fish and game clubs petitioned the province for more conservation officers, but

to no effect until some temporary help was provided from the mid-1950s. At Innisville, club members from Carleton Place and Perth provided volunteers to help patrol the riverbank, but they had no legal authority, and it was still impossible to be everywhere at once. More than a few poachers took pickerel, not for the sake of a good meal, but simply for the sport of playing cat and mouse with the wardens and volunteers, a local rite of spring. Fish and game clubs also helped to sustain the pickerel population with projects like the establishment of a sanctuary and improved spawning beds above Innisville.

The fame of Innisville's spawning run quickly led to Mississippi Lake being seen as 'the place' to hook a trophy pickerel. In 1955 Conservation Officer Forrest Richardson (1904-1967) predicted "... *an estimated 50,000 pickerel will be taken this summer from the waters of Mississippi Lake*". He explained that "*there are more than 1,000 boats in operation during the summer by visitors to the lake's 700-odd cottages and camps. Allowing an average of two fish per boat per week, 24 weeks yields the 50,000 figure.*"¹³

But with the passage of another 20 years, however, the nature's show at the Innisville rapids was no more. Where did the pickerel go?

To be clear, while the spectacular spawning runs of the early 20th century ended, pickerel did not completely disappear. Anglers could still hook a pickerel in the lake, and every spring scattered schools of pickerel still ascended the Innisville rapids on their way to spawning beds. But the phenomenon of a mass migration of a hundred thousand fish filling the river from bank to bank, from Innisville to Ferguson's Falls was only a memory of yesteryear.

The last stocking of Mississippi Lake in the mass migration era seems to have been in September 1952 when the Mississippi Fish and Game Association deposited 400,000 pickerel fingerlings in the lake. Then, in 1955, the Ontario Department of Lands and Forests (now the Ministry of Natural Resources - MNR) made some radical policy changes. Having concluded, based on evidence much disputed by the fish and game clubs, that the pickerel population was stable and naturally sustainable, the stocking of Eastern Ontario lakes was ended. Further, the eight-month May-December seasonal calendar for pickerel fishing was extended to 10 months, mid-May to mid-March, thus allowing for ice-fishing through the full winter.

¹³ *Perth Courier*, June 1955.

By 1958, pickerel stocks were clearly in decline, and the conservation committee of the Perth Chamber of Commerce wrote to the Department of Lands and Forests expressing “*great concerned with the depletion of our game fish, particularly pickerel*”, placing the blame primarily on poaching.



*We believe that illegal spearing during the spawning season is one of the main causes for the depletion of our fish. Very few people realize that we have 32 recognized spawning grounds in the immediate vicinity of Perth, and it is impossible for one conservation officer to supervise the whole area. At least 10 extra experienced officers [should] assist during the spawning season which is now here”.*¹⁴

In the spring of 1959, the *Perth Courier*'s 'Innisville News' column reported that “*The pickerel run is on. Not too many fish were seen Sunday. Lots of people to look.*”¹⁵ That summer, responding to popular pressure, the Department of Lands and Forests briefly yielded and, for the first time in five years, stocked Mississippi Lake with 500,000 pickerel fry. However, the effort may have been too little, too late. In 1961 *Perth Courier* columnist James P. Rae thought tales of earlier spawning runs much over-stated.

*After spending half of Sunday mingling with the crowds of sightseers at Innisville I'm still wondering what it's all about. Why do you suppose three or four thousand people would stand staring into the Mississippi River for hours on end? They saw nothing. I've been at Innisville at night, too, and I don't recall that the pickerel were packed like sardines. Certainly, if you tried to walk across the river on the backs of the fish – as the old-timers tell of doing – you'd be wet to the ears before you took a second step. I believe people are beginning to show just a flicker of suspicion over the Innisville grandstand show. Some may even suspect that pickerel are getting scarce. There has been a damned poor show of pickerel so far this year. There were a lot of disappointed people at Innisville on Sunday. Some were even indignant.*¹⁶

In 1963, in response to ever growing complaints from his constituents, particularly tourist operators, George Gomme (1912-1996)¹⁷, MPP for Lanark, urged Kelso Roberts (1898-1970), Provincial Minister for Lands and Forests, to have his Department “*return to its old practices of stocking lakes, particularly with pickerel*”.¹⁸ That summer several million day-old pickerel fry from the White Lake Hatchery were again planted in Mississippi, Clayton, White, Bennett's, Christie and Otty Lakes, but to little effect.

¹⁴ *Perth Courier*, April 3, 1958.

¹⁵ *Perth Courier*, April 23, 1959.

¹⁶ *Perth Courier*, April 27, 1961.

¹⁷ George Ellis Gomme, MPP for Lanark 1958-1971.

¹⁸ *Perth Courier*, March 14, 1963.

The restocking of 1960 and 1963 had little or no impact at Innisville. The following spring the spawning run was,

*... indeed, very spotty ... a few years ago the walleyes moved up the Mississippi River and rapids at Innisville by the thousands, but this year, for the fourth successive spring, the number of pickerel moving upstream from Mississippi Lake has been reduced to a trickle.*¹⁹

No exact date can be placed on the demise of Innisville's mass spawning spectacle, but it began to shrink when stocking stopped in 1955 and by the spring run of 1960 was a pale shadow of what it had once been. By 1965 the annual spawning frenzy had been reduced to scattered schools of passing fish.

The annual pickerel migration was a major attraction in past years for fishermen and tourists. At the height of the run the river and rapids became a seething mass of wriggling fish tumbling over each other as they headed upstream. However, once again this year, the number of pickerel moving can be seen only in small schools.

*Conservation officials have no explanation for the heavy drop in the annual run, but local fishermen believe that it is caused partly by overfishing in Mississippi Lake.*²⁰

Mississippi Pickerel Run a Flop Pickerel Run At Innisville Reduced To A Trickle

Mississippi's fish in danger

And so it continued. Nearly a decade later (1972) the Mississippi pickerel migration at Innisville was still headlined "A Flop".

*The annual pickerel run in the Mississippi at Innisville failed to materialize ... There were more cars and people than there were fish ... Many people walked backward and forward over the bridge and along the banks getting glassy-eyed as they looked for the 'big ones' ... All that could be seen were a few perch near the grassy shore.*²¹

And five years further on, in 1977, the *Perth Courier* concluded "the annual pickerel run is sputtering".²²

¹⁹ *Perth Courier*, April 23, 1964.

²⁰ *Perth Courier*, April 23, 1964

²¹ *Perth Courier*, May 11, 1972.

²² *Perth Courier*, April 7, 1977.

From at least the 1960s, the disappearance of pickerel from the Innisville rapids was the subject of much debate. Was the Ontario Government at fault for allowing over-fishing when it implemented a 10-month season on pickerel, including all-winter ice fishing? Many believed poaching, or even too many American tourists, was to blame. Others pointed to erratic water levels caused by upstream power dams, or pollution, or even the expanding number of water-side cottages creating too much light. The Highway-7 concrete bridge built in 1958 was sometimes blamed. The appetite of largemouth bass for pickerel fingerlings was suspect, as was the fact that Pickerel ate their own fingerlings. Many held the cessation of annual re-stocking programs responsible. Other's posited that, as pickerel were an artificially introduced species in the first place, perhaps maintaining a population in Mississippi Lake was simply inappropriate and unsustainable.



It was not until 1979 that a MNR study offered an explanation. The agency pointed to *“an oxygen shortage developing in the lower layers of water, below 15 feet”*. Over the previous 10 years the oxygen had been depleted by one third and the bottom third of the lake had become *“unsuitable for sports species to live in, pickerel and pike now only have a thin layer to live in”*. The study blamed excessive nutrient enrichment, sourced in discharges from cottages and tourist camps, concluding that *“all that can be done to help the fishery in the Mississippi is regulate the fishing seasons and, perhaps, improve spawning beds”*.²³

Since 1980 there has been no stocking of Mississippi Lake, and the lake has been managed by MNR as a self-sustaining fishery. The annual Innisville spawning run is an uninspiring affair.

- Ron W. Shaw (2025)

²³ *Perth Courier*, September 5, 1979.