St. Clair
In The Spotlight

Lake St. Clair has had its issues, not the least of which was VHS. Today, it's back with a vengeance

By Spencer Berman, Contributing Writer

It is a long known truth that lakes tend to come and go in the eyes of musky fishermen, as they seem to peak and decline in their ability to produce quantities of big fish. Because of this, anglers are always looking for the new hot lake — and right now, it's Lake St. Clair on the Michigan-Ontario border.

Lake St. Clair, however, is not a new musky fishery as so many other hot musky waters are, such as Mille Lacs, Vermilion or Green Bay, which seem to peak out just after the newly-stocked fish start reaching their full growth potential. St. Clair, on the other hand, has all natural Great Lakes strain muskies that have been in the lake forever. So the obvious question becomes: why is this lake hot right now?

The reasons for this are not only extremely numerous, but also particularly interesting. This article has been broken up into two separate parts. Part 1 deals with the layout of the lake and the biology behind its rise to the top of the musky fisherman's wish list. Part 2, in the August/September issue of *Musky Hunter*, deals with how these changes have impacted the fishing and how anglers can succeed on this magnificent piece of water.

Due to the lack of sufficient research on the actual fishing and total fish records of Lake St. Clair, what I'm about to discuss contains a fair amount of speculation. However, I did pick the brains of a couple of the head biologists from both the Michigan and Ontario sides of the lake, then combined their information with my fishing data as well as that of Lake St. Clair captain Jason Quintano of Fins and Grins Muskie Charters (www.finsandgrinsmuskiecharters.com) to fill in the blanks.

The History

All fisheries go through cycles with peaks and valleys in the fishing, as well as slight changes in their overall biological makeup. Lake St. Clair, on the other hand has seen a complete overhaul in its make up, biology and fishing. It is documented that before the Michigan area began to be heavily logged and then farmed, Lake St. Clair was a fairly clear system. Once the lake's watershed began to be heavily farmed and the trees were no longer around to stop erosion, sediment-filled water flowed into the lake, which caused it to lose clarity and become much more turbid. Then, the use of powerful chemical fertilizers on surrounding land caused a boom in algae growth which, when combined with the sediment, resulted in extremely low water clarity.

In 1972, the Clean Water Act was passed which greatly reduced the chemical content that could be put into the lake from runoff or otherwise. This caused a slow but noticeable amount of cleaning to occur in the lake and it became increasingly clear. Then in 1998 the proverbial bombshell hit — quagga and zebra mussels where introduced. Both of these mussels are extremely-effective filter feeders with very high reproduction rates, whose effect was astonishing. Within a few years the lake's water cleared up dramatically, and the mussels are considered to be one of the largest reasons that Lake St. Clair maintains a visibility which frequently exceeds six feet.

The effects of cleaner water were numerous. First, as the water cleared it allowed more sunlight penetration and weed growth skyrocketed. A study by the Ontario Ministry of Natural Resources showed a 500 percent increase in plant growth from 1978 to 1994, and many biologists speculate that since 1994 the weed growth has probably gone up another 500 or so percent due to the further increase in water clarity.

Muskies have benefitted. The addition of weeds and clearer water not only increased their habitat, it improved reproduction rates, which took this already famous fishery to new heights.

By understanding how these changes have affected both the musky population and the lake itself, you will be not only a better student of the environment but also a much better angler. While this information is specific to Lake St. Clair, there are a number of other lakes which have gone through similar changes and this information could be use-

Big muskies from Lake St. Clair. Author Spencer Berman helps his clients hold 52-inch and larger muskies for photos before release.

ful there as well.

Since 2000

In the early 2000s St. Clair's musky population increased but the girths of the muskies were less than desired. Although a large number of fish grew to 25 to 30 pounds, the 40- and 50-pound marks were out of the question. The muskies had enough to eat but had to work very hard for their food and therefore had to burn a lot of calories to get it. During this period the primary food source was small- to medium-sized perch. Although perch are a good food source for muskies they do not have a high fat content, and larger fish were being cropped off by perch anglers.

In 2003, viral hemorrhagic septicemia (VHS) was discovered in a musky from Lake St. Clair. The virus took a tremendous toll on the musky population, killing as much as 40 to 50 percent of the fish in the system. Although the immediate results on the fishery seemed horrible, the virus turned out to be one of the greatest things to have ever happened to Lake St. Clair musky fishing. As is true with any virus, it is more lethal to fish with a compromised immune system and killed the malnourished, sick, weak or otherwise not-completely-healthy specimens. More or less this resulted in an extreme example of natural selection and made an improvement in the musky strain, leaving us with only the strongest fish.

At the same time, Lake St. Clair has seen an explosion in gizzard shad. When VHS hit, the reduction in predators triggered a gradual increase in the shad population. More importantly, however, the major limiting factor to gizzard shad populations has always been winter die-off and a series of mild winters has sent their numbers sky-high. Lake St. Clair is located at the northern-most extreme of the gizzard shad's range and they are not capable of handling long periods in cold water. Since gizzard shad have high reproduction rates, the result is an explosion in their numbers. From 2006-2010 the Ontario Ministry of Natural Resources

conducted a survey of the shad population of the south shore of the lake and documented this explosion — nearly three times as many shad were caught in survey nets in 2010 than ever before.

This shad explosion gives the muskies a new food source which is extremely well suited for helping them grow quickly. Gizzard shad average between 6 and 12 inches in length and can easily exceed 16 inches. Their dinner-plate body design however makes them more substantial than a leaner fish such as a perch of the same length. In addition, gizzard shad are extremely oily, making them a very high protein, fattening meal. Combine that factor with the giant shad schools, muskies can procure a big meal with little effort — a perfect food source to grow big muskies. Add shad to a large perch population, as well as walleyes, white bass, catfish, sheepshead, etc. and you are left with an extremely well-rounded musky forage base.

The last major factor to Lake St. Clair's musky explosion is a change of attitude by anglers. In 2004, large trolling boats began using livewells to revive fish before releasing them, which greatly improved their survival upon release. This evolution is summed up nicely by top trolling charter captain, Jason Quintano:

"Lake St. Clair sees the majority of its fishing pressure from large trolling boats, typically 20- to 30-foot cabin cruisers. Due to the style of trolling utilized with the big planer boards you cannot just stop your boat without bringing your entire set in. Before the addition of livewells we were forced to release fish by simply leaning over the side of the boat and dragging them until they swam away. The intentions were good but it was tough on the fish.

"Now with the FISH ThANKS and similar livewells, we pump fresh water from our wash-downs into a 56-inch livewell, and then when the fish is swimming on its own we release it. Dave Clark's design is now used by the majority of trollers here on Lake Saint Clair and you shouldn't be trolling without a FISH ThANKS or some sort of livewell that allows the fish time to recuperate."

Part 2 of this article, in *Musky Hunter's* August/September issue, will discuss how these changes have transformed musky fishing on Lake St. Clair.

Hopefully, this information helps you understand how Lake St. Clair functions. Keep in mind that these concepts can also be applied to your local waters so that you are able to fish them much more effectively.

Captain Spencer Berman fishes the musky waters of Indiana as well as Lake St. Clair. For more about him, visit www.spencersanglingadv.com