

Fall River/Toronto Fisheries District Newsletter

White Bass or Wiper?

White bass, wiper, white perch, palmetto bass, sunshine bass, hybrid striped bass, can you tell the difference? Does it really matter? The 2017 statewide creel limit on wipers (white bass X striped bass hybrid) was two except for six lakes where it was five (Leavenworth SFL, Lonestar Lake, Paola Lake Miola, Lake Shawnee, Coldwater City Lake, and Marion Reservoir). Beginning in 2018, the statewide creel limit on wipers will change to five per day. This change was implemented to allow harvest of wipers in tailwaters, rivers, and streams before they are flushed downstream and out of the state. Fisheries management biologists may set special creel limits of two per day on impoundments that need more restriction to allow for larger wipers and improve predator:prey ratios. All lakes in the Fall River/Toronto Reservoir Fisheries District will remain with the two fish per day creel limit. Length and creel limits apply to those bodies of water from the lake dam and upstream to the public property boundary.

White perch are aquatic nuisance species in Kansas. They are a nuisance because they cause declines in sport fish populations, especially walleye and white bass. They out-compete native fish for food. They are voracious fish egg eaters, and they hybridize with white bass. Have you ever tried to get a worm to the bottom to fish for catfish at Cheney? The white perch won't leave it alone. They're merciless. How do sport fish get anything to eat?

You can't have any live fish (regardless of species) when you leave a designated aquatic nuisance species body of water. There's no limit on the number or length of white perch you may possess. However, there may be length and/or creel limits on white bass, wiper, and striper. How do you tell them apart? White perch are the easiest to identify . . . or are they? White perch can look similar to all these species. However, they are the only one that when you pull the spiny dorsal fin forward, it raises the soft dorsal fin because they are connected.

Problems arise when white perch hybridize with white bass or wipers. They become difficult to tell apart. White perch don't have a tooth patch on the back of their tongue. However, hybrid white perch may. Furthermore, it may be single like in white bass or divided like wipers and strippers. The amount of connection between the spiny and soft dorsal fin is variable in hybrid white perch, too. A genetic test will

definitely distinguish them, but you don't have to go that far, unless you want to keep more than two hybrid white perch that just happen to have almost no connection between the dorsal fins and a double tooth patch and the fish is less than 12 inches (the maximum size in Kansas). It may be possible to confuse this type of hybrid white perch with a small wiper.

What is a wiper, and how do I know if I catch one? A wiper is a hybrid cross between a white bass and a striped bass. There are two ways to make them. If you use a male white bass and a female stripper, it's called a palmetto bass. If you reverse it and use a female white bass and a male striped bass, it's called a sunshine bass. In either case, you can just call it a wiper. Kansas' fishing regulations don't differentiate between the palmetto and sunshine bass. In fact, they don't mention them at all.

Most of the time, wipers have a divided tooth patch on the back of the tongue. Don't confuse this with the two side tooth patches on the tongue (see the identification guide). White bass have a single tooth patch. It's easy to know you have a wiper when there's two tooth patches on the back of the tongue. Unfortunately, there is a lot of variation in this tooth patch and the amount of separation. Let me digress and tell you the story about the first time I learned that not all wipers have two tooth patches.



Toronto Reservoir 9.7lbs. wiper

In April 2010, a Toronto Reservoir angler contacted me and wanted me to verify a new state record white bass. I knew from fall test netting that there were potential state record fish in Toronto, so I was

understandably excited. What's more, they still had the fish alive at the bait shop. My first clue that this was not a white bass was that it weighed 9.7 pounds, more than four pounds over the then state record of 5.5 pounds. The problem was that it clearly had a single tooth patch. So I took a small piece of tissue from a fin, preserved it in a special solution, and mailed it to the genetics research lab in Texas. They identified the fish as a wiper and told me they test about one percent of wipers with a single tooth patch. This was a one in a hundred wiper that swam downstream from Eureka City Lake where I stocked it.



Toronto Reservoir wiper with single tooth patch.

Since then, I've been watching for hybrid variation. I've examined nearly 10,000 white bass. I've seen tooth patches that look like hearts, and some that have a thin hair-like dividing line. These odd shapes are usually in fish less than 12-inches. I wonder if these oddly shaped tooth patches will separate into the usual well separated double tooth patch as the fish grows. Or, are these hybrids, possibly two or three generations after the original cross. I still have more confidence in tooth patch predicting species than stripe patterns or body shape.


Fish identification guides describe various horizontal stripe patterns and body proportions when distinguishing between striped bass, white bass, and wipers. Striped bass are supposed to have slender more torpedo shaped bodies. Their horizontal stripes are distinct and unbroken. You can be confident you have a stripper if it's over 20 pounds. Wipers are described as more deep-bodied than strippers. I'd describe them as football shaped. Wiper stripes are also distinct, but broken above the lateral line and the first one below is solid. White bass are the least streamlined. Their horizontal stripes are not distinct and are broken or incomplete.

Identification of Striper, Wiper, White Bass, and White Perch


Similar appearances, varying length and creel limits, and the recent appearance of the aquatic nuisance species, the white perch, make proper identification of the striped bass, striped bass hybrid (or wiper), white bass, and white perch very important for Kansas anglers. White perch have become established in Cheney and Wilson reservoir and Kingman State Fishing Lake. White perch are capable of out competing native fish for food and space. Therefore, anglers are prohibited from moving white perch from one body of water to another. The following information will aid in the identification by providing distinguishing characteristics of each species. Individuals in a species and differing water conditions may impact the ease of identification and close examination may be needed. There is no daily creel limit on white bass or white perch. Creel limits on wipers and striped bass is 2/day statewide, check your regs for combined/aggregate limits at some lakes.

STRIPED BASS

Common to reach and exceed 20 pounds



Back of tongue has TWO tooth patches




Slender bodied, less than one-third length

Stripes distinct


Spiny and soft dorsal fins not connected, both fins do not pop-up when spiny dorsal manually erected

WIPER

May exceed 10 pounds



Back of tongue has TWO tooth patches




Deep bodied, more than one-third length

Stripes distinct


Spiny and soft dorsal fins not connected, both fins do not pop-up when spiny dorsal manually erected

WHITE BASS

Seldom exceeds 3 pounds



Back of tongue has ONE tooth patch




Deep bodied, more than one-third length

Stripes not distinct


Spiny and soft dorsal fins not connected, both fins do not pop-up when spiny dorsal manually erected

WHITE PERCH

Seldom exceeds 1 pound




Deep bodied, deepest part just in front of or at the beginning of the spiny dorsal fin



No distinct stripes

Spiny and soft dorsal fins connected, both fins pop-up when spiny dorsal manually erected



Artwork by Joseph R. Tomelleri

My observations are that you can't distinguish between species by body shape or stripe pattern. They may give me a clue, but I reserve judgement until I see the tooth patch. During fall test netting, I saw some 1.5-2 pound white bass in Toronto Reservoir that were definitely torpedo shaped with distinct solid lines just like strippers. But, when I checked the tooth patch, there was one. If you held one of these white bass next to the same sized striper, they'd look very similar. Look at these two white bass below. The top one has almost no horizontal lines, while the bottom one looks like a wiper with its broken lines.

What's in Toronto Reservoir Stilling Basin?

October 17, 2017 was the day the US Army Corps of Engineers drained the stilling basin below Toronto Reservoir dam. They do this periodically to clean out the accumulated logs, rocks, and debris that collect down there, and to inspect the concrete for damage and make any necessary repairs. This was the third time this year they tried to drain the basin. The first time it rained upstream in the Verdigris River basin and they had to release some water. Flood control pool storage empty is 168797 acre-feet which is equivalent to 4.34 inches of runoff over the entire drainage basin. It's a good thing we don't get very many four-inch rains over the entire 730mi² drainage basin or the lake would be constantly filled to capacity and overflowing. Frequently it rains way more than four-inches, but just in one spot in the basin. The second time the inspection was cancelled was because the Kansas Water Office ordered the release of water downstream to fulfill an irrigation water right.



Toronto Reservoir stilling basin

There are eight tainter gates (40' wide by 25' high) on top of the dam and seven sluice gates (5' wide by 6.6' tall) on the bottom of the lake that control the water released through the dam. Pictured above are the sluice gates wide open. The purpose of the stilling basin is to break up the hydraulic pressure exerted on the toe of the dam so it doesn't erode when water is released. Think about the plunge pool below the outlet pipe on a pond dam if they don't rock it. The Toronto Reservoir stilling basin is a fancy plunge pool made of solid concrete with offset baffles, buried eight-feet below the river channel grade.

To get the water out of the basin, they used two six-inch pumps. Although they kept all the gates closed, some water leaked by so once the big pumps had the water level down, they had to keep a small two-inch pump constantly running or it would begin to fill back up. Once the water level was about a foot deep, they used a big trackhoe to lower a bobcat loader down into the basin. The bobcat pushed all the logs over to the trackhoe which lifted them out and loaded them into a



Toronto Reservoir white bass

The bass below are both football shaped. The first picture is a 17 inch white bass from Toronto that weighed over three pounds and had a relative weight in excess of 110 percent. The bottom fish looks similar in shape to the upper one. The horizontal stripes are similar, too; they don't appear that broken. However, it is a wiper from Olpe City Lake that was 29 inches and weighed over 15 pounds. No matter what the bass looked like, it was the tooth patch that ultimately determined the species.



Toronto Reservoir white bass



Olpe Lake wiper



Loading rough fish

dump truck. The logs were water logged and there were quite a few of them. The logs came through the gates from the lake. Then the bobcat pushed up a mountain of 12-inch rip-rap and smaller boulders and gravel over to the trackhoe to be removed. The rocks were sucked into the basin from the eddies that result when the gates were wide open. The bobcat was small enough to fit between the baffles.



Seining the bottom of Toronto Reservoir stilling basin.

Once all the debris was removed, we began to gather up the fish with a heavy duty 50 foot seine. It took four men to pull the seine loaded with fish. Rough fish were loaded into the trackhoe bucket and lifted out and into a dump truck. There were four or five dump truck loads of rough fish hauled off and buried. Rough fish were buffalo, carp, drum, shad, and gar. The seine hauls were so full that it eventually split and had to be repaired.

Sportfish were separated out from the seine and held in a large tank. Sportfish were crappie, saugeye, flathead catfish, channel catfish, blue catfish, and white bass. Once the tank was full of sportfish, they were loaded into the trackhoe bucket and lifted out and loaded into the fish tank on my truck. We released six loads of sportfish downstream into the river. Before we had ANS concerns, I released the sportfish above the dam into the reservoir.

Not all the fish were released, however. You may get to see a select few fish salvaged from the

stilling basin below Toronto Reservoir in the mobile aquarium. One of our Pratt Headquarters Administrators, David Breth, brought a hatchery truck filled with filtered water to transport a few trophies to Milford Fish Hatchery. The fish on the hatchery truck had to be decontaminated through a strict ANS protocol before being transported above the dam. Chemicals that kill zebra mussels were added to the hauling tank. The fish will have a new home at the hatchery until they are displayed in the mobile aquarium.



Flathead catfish to be displayed in mobile aquarium.

We try to collect a diverse and interesting display of both sportfish and rough fish for the aquarium. Many of the fish from the stilling basin were too big to do well in the confines of the 32,000 gallon mobile aquarium. I saw several bigmouth and smallmouth buffalo that may have exceeded the current state records of 62 and 51 pounds, respectively. There were longnose gar approaching six-feet long and 20-pounds that couldn't have turned around in the tank. One flathead was in the 70-pound range, but we'll never know because it broke the steel fish gripper used to weigh it when it thrashed around. There were several that size, too! It is too bad we couldn't display these behemoths in the aquarium, but they would have eaten the other fish.



One of many 50+lbs. flatheads released down-stream.

It took a lot of man power to move the tons of fish and debris out of the stilling basin. There was long hours of back breaking lifting going on. I'm thankful for the heavy equipment and expert operators. There were supervisors, administrators, and field staff from across Kansas that pitched in to help. Thank you to Greg Sievert, Emporia State University teacher, for sharing many of the photos in this newsletter. I didn't have time to truly capture this momentous occasion.

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Get your friends, get your family
... and FISH KANSAS!



??? 70+lbs. flathead released down-stream.