

# Elk City District Fisheries

Kansas Department of Wildlife, Parks and Tourism

Winter 2013/2014

## Fall 2013 Netting Complete

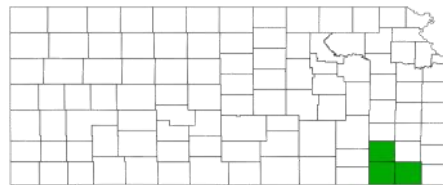
Six reservoirs in the Elk City District were sampled in November and December, 2013 to monitor channel catfish and crappie populations: Altamont City Lake-East, Big Hill Reservoir, Elk City Reservoir, Montgomery State Fishing Lake, Parsons City Lake, and Wilson State Fishing Lake. Most of the reservoirs produced predictable results. However, there was one exception: Parsons City Lake. I'll go more into what we found there on page 3. Look for results from Big Hill and Elk City on page 4.



## Hybrid Catfish Are Here

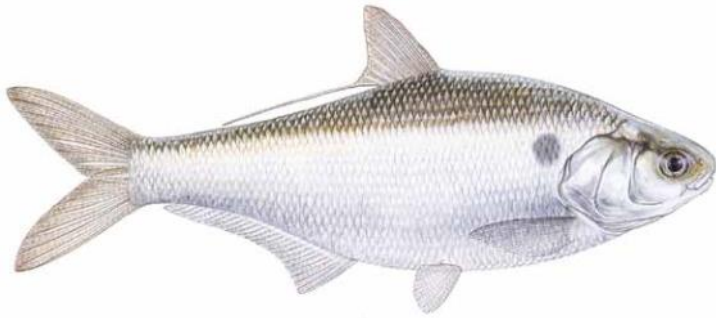


As many of you already know, we are experimenting with hybrid catfish in Montgomery and Wilson State Fishing Lakes. We stocked about 2,000 in Montgomery and about 1,500 in Wilson last September. These stockings were in addition to equal numbers of channel catfish. We will be monitoring growth and catchability of both hybrid catfish and channel catfish over the next few years to determine what gives us the best bang for your buck. Read more on page 5.



# Partial Renovation at Montgomery

During the flood of 2007, some unwelcome visitors were introduced into Montgomery State Fishing Lake: gizzard shad. If you're questioning why gizzard shad are a bad thing, you're not alone. Many anglers recognize them as a forage fish. These anglers are right, to an extent.



Gizzard shad are common forage for open water predators such as white bass and walleye: fish that are often found in large reservoirs and rivers. However, many smaller impoundments, like Montgomery State Fishing Lake, do not support populations of these pelagic predators. Without natural predators to keep their population in check, they can expand quickly. Gizzard shad are planktivores and share a similar diet with bluegill. Because gizzard shad typically hatch earlier in the year than bluegill, they often get first choice of food and leave little for young bluegill. Such was the case at Montgomery State Fishing Lake. As a testament to their propensity to expand, one gizzard shad was sampled in 2008 and 352 were sampled in 2011. In addition, we noticed that maximum size of bluegill had decreased from nearly 10" to 8".

Typically in these situations, a total renovation is prescribed. This entails draining the reservoir, killing all fish, allowing the reservoir to refill, and restocking it with desired fish. This is a very effective means for restructuring the fish community but comes with a hefty price tag, both financially and for the anglers. It usually takes at least two years for fish in renovated systems to reach catchable size. Our hope was to apply rotenone, a fish toxicant, at a low enough concentration that gizzard shad were affected, but most sport fish were not. This approach should result in decreased abundance of gizzard shad and improved growth of bluegill at a reduced monetary cost and limited closure to anglers.



## What is Rotenone?

Rotenone is a fish toxicant derived from roots and seeds from a group of tropical plants. Several key characteristics make it useful for a safe fisheries management tool.

First, rotenone inhibits mitochondrial energy uptake in gill-breathing animals. This means that fish are unable to convert oxygen to energy, but other animals are not affected.

Second, the chemical breaks down rapidly in the environment and does not bio-accumulate in fish. Ultimately, this means that birds and other animals that eat fish killed by rotenone application are not harmed.

Third, a small amount of chemical goes a long way. We applied a concentration of 7.5 parts per billion in Montgomery State Fishing Lake. This equated to only 1.1 gallons of active chemical in the entire reservoir.

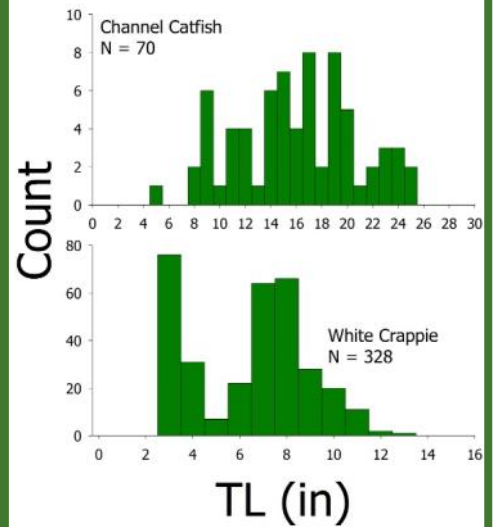


# Parsons City Lake Looking Good

Parsons City Lake is a 980-acre gem located northwest of Parsons in Neosho County. The lake is popular among crappie anglers in spring, recreational boaters in summer, and duck hunters in fall. One often overlooked species in the lake is saugeye. Saugeye are a cross between sauger and walleye and make excellent table fare. They are stocked intermittently to prevent white crappie from overpopulating and stunting. Saugeye were last stocked in 2010 and more were requested for 2014.



Channel catfish and white crappie samples were exceptional in 2013. We saw 70 channel catfish that averaged 17" and two pounds. The largest channel catfish was 26" and six pounds. We sampled 328 white crappie that ranged from 3-13 inches. Fish ranging from 8-10" constituted nearly 30% of the sample. Try drifting mid-lake with chicken liver for channel catfish and pitching jigs or minnows along the shoreline for crappie.



**There are several reservoir maps with blue and red blocks and numbers in this newsletter. These represent catch data from our 2013 netting samples. Blue blocks represent crappies and red blocks represent channel catfish.**

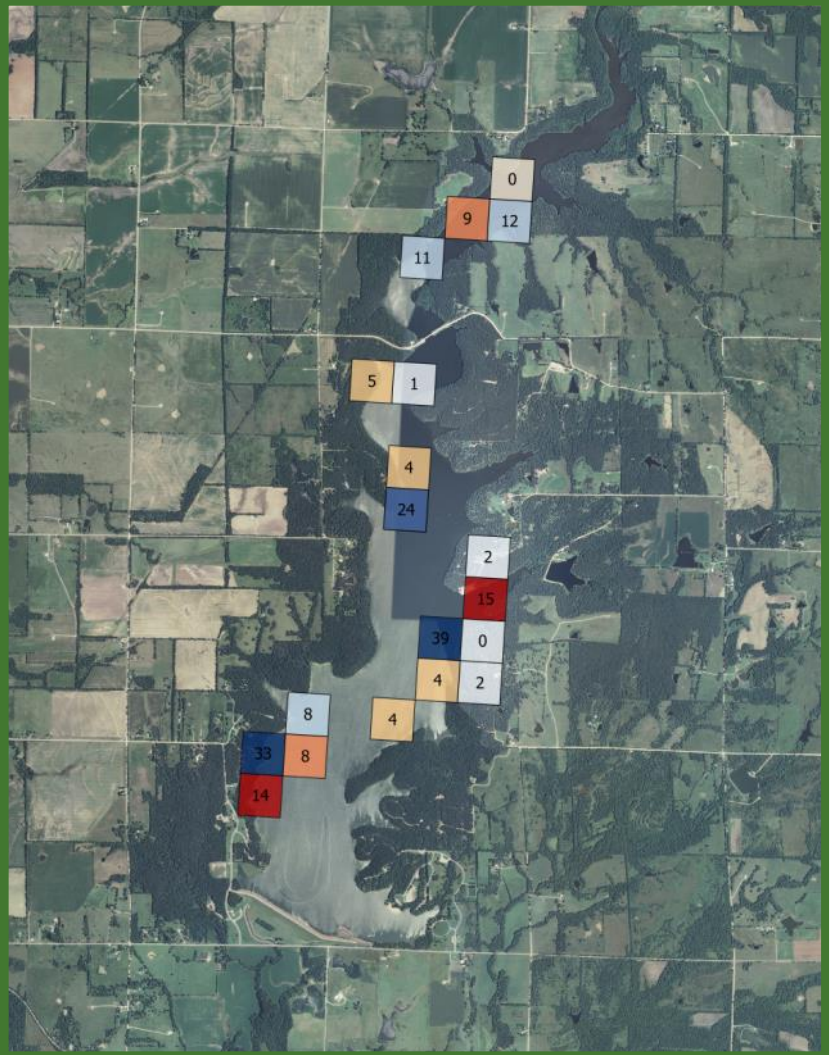
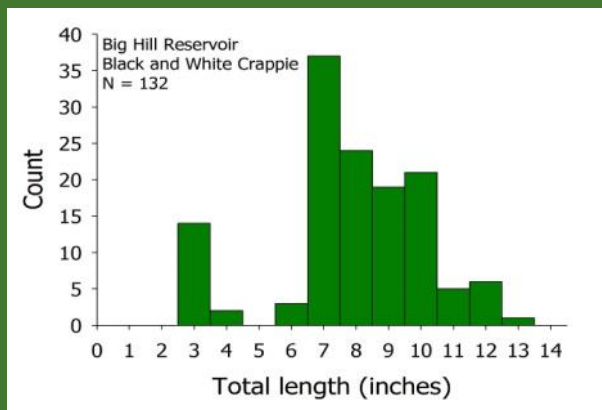


# Big Hill and Elk City Staying Steady

Big Hill Reservoir is among the most popular reservoirs in southeast Kansas for many reasons. Two of those reasons are channel catfish and crappie. This year's catfish and crappie sample showed that Big Hill will likely remain a popular destination in upcoming years.

We routinely saw channel catfish exceeding 18" suggesting that there are plenty of fish available for both catch-and-release anglers and harvest-oriented anglers.

Our crappie sample was a typical Big Hill sample: lots of fish with the majority in the 7-11" range.



Elk City Reservoir should remain a premier crappie fishery in 2014. We didn't see as many fish this year as we did the last two years, but the population is still in excellent shape.

We sampled large numbers of 3" fish indicative of a strong 2013 year class. These fish should become available to anglers in fall 2014 and will be on the banks spawning in 2015.

Focus your efforts this spring in state park cove. When water temperature rises into the mid-50s, it's time to dust off your crappie rod.

Use jigs or minnows and be patient!

## Hybrid Catfish

Produced by fertilizing channel catfish eggs with blue catfish sperm, hybrid catfish represent an exciting opportunity for Montgomery and Wilson State Fishing Lakes. These hybrids are reported to grow faster, yield more meat, taste better, and be easier to catch than their channel catfish mothers. However, these claims are largely unsubstantiated outside of controlled ponds in the southeast U.S.

We stocked the normal number of catfish in both impoundments in September, however half were hybrid catfish and the other half were channels. We marked each stocked fish by clipping the adipose fin and applying a freeze brand. These vertical brands were right behind the pectoral fin and indicate species (right side for hybrids and left side for channels). These will be useful for analysis of growth and catchability. Let us know what you think!



Hybrid catfish showing clipped adipose fin and vertical freeze brand under the dorsal fin on its right side.



Channel catfish showing vertical freeze brand under the dorsal fin on its left side.

## Cleaning and Eating Gar

Do you consider gar to be a 'trash fish'? If so, you're not alone. You've also probably never eaten one.

Cleaning gar is relatively easy. It requires a hacksaw, kitchen shears, and a knife. Use the hacksaw to make a horizontal cut through the scales right behind the head, use the kitchen shears to cut through the skin all the way to the tail, and use the knife to peel meat away from the skin and ribs. You'll end up with two long pieces of good, boneless, white meat.

Cooking gar is really no different from any other fish. I had mine lightly breaded and fried. The taste was pretty bland really, not fishy as I expected. The texture was similar to alligator or even pork. It wasn't flaky and was a little bit chewy. All told, it was pretty good once I accepted the different texture. I'm looking forward to eating some more this summer and trying some new ways to prepare it.

Look for gar below the dam at Elk City. Give it a shot, you won't be sorry.

Watch a gar cleaning tutorial here:

<http://goo.gl/4jnte6>

Winter provides fisheries biologists with time to work on habitat projects, analyze data, and prepare reports. If you see us out and about this winter, feel free to say hello or ask any questions you may have.

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