
TITLE 312 NATURAL RESOURCES COMMISSION

Economic Impact Statement
LSA Document #14-510**IC 4-22-2.1-5 Statement Concerning Rules Affecting Small Businesses****Estimated Number of Small Businesses Subject to this Rule:**

Twenty-five businesses that may be impacted by the changes to [312 IAC 9-8-2](#) governing commercial fishing on inland water.

Twenty businesses that may be impacted by the changes to [312 IAC 9-8-6](#) governing commercial fishing on the Ohio River.

Estimated Average Annual Reporting, Record Keeping, and Other Administrative Costs Small Businesses Will Incur for Compliance:

There are no additional reporting, record keeping, or other administrative costs as part of this rule change.

Estimated Total Annual Economic Impact on Small Businesses to Comply:

\$375.55 per year per commercial fishing business (both Ohio River and inland water).

Justification Statement of Requirement or Cost:

The sale of commercial fishing licenses, both for inland water and the Ohio River, is not expected to change because an unlimited number of blue and flathead catfish can be taken that are at least 13 inches and less than 35 inches and an unlimited number of channel catfish can be taken that are at least 13 inches and less than 28 inches. Kentucky already has similar regulations in place for commercial anglers on the Ohio River, and Illinois is working on similar regulations for the Wabash River boundary waters. Most of the catfish taken from the Wabash River are taken by recreational (sport) anglers (approximately 60%), not commercial anglers (approximately 40%). Harvesting catfish will become more self-limiting because of the declining number of large catfish in the rivers, regardless of the regulations. Additionally, if they sell the large catfish the same day or fillet (process) it in some way and store it at their permanent residence or facility pursuant to [312 IAC 9-2-8](#), they can catch another one of each of these large catfish the next day.

In 2000, approximately 35,000 lbs. of catfish were harvested on the Ohio River. Fourteen years later, that number has dropped to approximately 10,000 lbs. For inland water, approximately 132,000 lbs. of catfish were harvested in 1989. Twenty-four years later that number has dropped to approximately 70,000. There is not a direct correlation between the number of tags sold and the number of catfish harvested because water conditions (temperature and water level) and the natural variability of fish populations can also have an effect. These numbers do not include catfish that have been harvested by sport anglers, who as noted are not required to report. In one prior study on the Wabash River, it was estimated that sport anglers had harvested over 180,000 pounds of catfish in a given year.

Commercial fishermen who target catfish smaller than 13 inches (mostly channel catfish) for sale for human consumption (referred to as "fiddlers") would be impacted. Input from commercial anglers during a public comment period on a previous rule proposal in 2010 resulted in the modification of the minimum size of 13 inches, instead of 15 inches.

A commercial fishing license on inland waters costs \$20.00 per year for each 100 yards of seine and \$4.00 for each dip-net, hoop-net, basket trap, trap-net, or fyke-net used. There are approximately 354 licensed individuals that conduct commercial fishing on inland waters, and most of them are simply recreational anglers that use commercial fishing gear to take catfish and other species for personal use (food for relatives and friends) and for local fish fry events. The catfish harvested by all commercial anglers on inland rivers in 2008 was 90,969 pounds, an increase of 31,753 pounds from 2007. Catfish comprised 84% of the total harvest in 2008. The retail value for catfish sold by commercial anglers as fillets is estimated at \$4.00/lb. and \$1.75-\$2.50/lb. for live catfish with those over 10 lbs. given \$2.50/lb. or more. Individuals will only be able to take catfish that are at least 13 inches in size or more and take no more than one channel catfish that is 28 inches in length or more, one blue catfish that is 35 inches in length or more, and one flathead catfish that is 35 inches in length or more per day. They will be allowed to take one of each of these large catfish per day. Since an unlimited number of blue and flathead catfish can be taken that are at least 13 inches and less than 35 inches and an unlimited number of channel catfish can be taken that are at least 13 inches and less than 28 inches, these commercial anglers can still take catfish that are needed for personal consumption and sale.

An Ohio River commercial fishing license costs \$125.00 per year and includes 10 commercial gear tags. Additional blocks of 10 commercial gear tags cost \$15.00. There are only 20 licensed individuals that conduct commercial fishing on the Ohio River, and 12 of them fish primarily for paddlefish, not catfish. The catfish harvested by all commercial anglers on the Ohio River in 2008 was 12,886 pounds. Flathead catfish comprised 10% of the total harvest in 2008, while channel catfish comprised only 4% and blue catfish 3% of the total harvest

for 2008. The retail value for catfish sold by commercial anglers as fillets is estimated at \$4.00/lb. and \$1.75-\$2.50/lb. for live catfish with those over 10 lbs. given \$2.50/lb. or more. Ohio River commercial license holders will still be able to take an unlimited number of blue and flathead catfish over 13 inches and under 35 inches and channel catfish over 13 inches and under 28 inches each day, allowing commercial anglers to still take catfish that are needed for personal consumption and sale.

The DNR commenced studying the decline in the catfish harvest in 2009 following the Natural Resources Commission Comprehensive Rule Review Project. At that time, a number of citizens and sportsmen organizations proposed increased protection for the catfish, citing concerns about potential commercial overharvest of big catfish for sale to pay lake operators. The study was completed by the Division's Fisheries Research and District Biologists, many of which are certified fisheries biologists through the American Fisheries Society and at a minimum hold a bachelor's degree, with most having earned a master's degree specific to fisheries science.

Additional research by Dr. Robert Colombo of Southern Illinois University concluded that with the current regulations, only a modest increase in harvest could cause overfishing of catfish on the Wabash River. In particular, with the current 10" minimum size limit in Indiana's portion of the Wabash River, the spawning potential ratio dropped below the 0.20 threshold at a fishing mortality of 33%, which means recruitment overfishing will occur if harvest exceeds 33%. This ongoing research suggests that flathead catfish are currently experiencing about 30% fishing mortality. Dr. Colombo noted that increasing the minimum size limits to 13" would lead to increased population abundance and higher angler catch rates and yield because it increases the reproductive potential of smaller/younger fish.

Recreational harvest estimates were not available when Colombo authored his report, but the 2005-2006 Wabash River creel survey indicated that around 70% of all catfish caught recreationally are harvested. Catch-and-release fishing was minimal, but did increase farther upstream. The 2009 report by Steve Donabauer reported that the current 10" minimum size limit allows harvest of immature fish and thus provides very limited protection for first time spawning catfish. Flathead catfish become sexually mature between three to five years and channel catfish at four to five years, yet flathead catfish are already nearly 12 inches long by age three and channel catfish are nearly 12 inches by age four. Donabauer also showed larger, older fish and lower annual mortality and exploitation rates in the noncommercially fished section of the Wabash River.

At the completion of its five year study, the Division has concluded that the decline in catfish harvested can be attributed to a number of factors, including:

- Increased sport fishing interest in catfish, both for consumptive harvest and for a growing number of catfish catch-and-release tournaments;
- Increased commercial harvest above the long term annual average, including the targeting of the largest catfish available for live sale to pay lakes;
- First-hand observations and anecdotal information from fishermen over a period of years that suggest the number and size of catfish appears to be declining, at least in some heavily fished locations;
- Unquantified but likely negative impacts on catfish from growing abundance of Asian carp as well as impacts of other exotic invasive species such as zebra mussels;
- Periodic water quality issues, most notably from nonpoint source pollution affecting Indiana's rivers;
- Knowledge that current 10-inch minimum size limit does not protect catfish to reproductive size, which is closer to 15 inches;
- Research findings that document catfish are more heavily exploited in the commercially fished zones of the Wabash River.

Indiana is not the only state in the Midwest that has studied the decline in catfish harvest and concluded that changes were implemented or proposed in order to protect the species with the best reproductive potential:

- The Kentucky DNR now has similar catfish changes on the Ohio River for large, "trophy" catfish, with the exception of commercial fishing below the Cannelton Lock and Dam near Tell City in Perry County; Kentucky's regulations allow commercial fishermen who have harvested over 10,000 lbs of catfish in at least two of the last three years and others selected by a drawing (for a total of 50) to take up to four of these large catfish per day.
- The Illinois DNR is proposing a change in catfish minimum length limits for the Wabash River. They are proposing a 13" size limit for both commercial and recreational fishers, and adding a 20 catfish per day bag limit for recreational anglers; previously they had a 15" minimum size limit for commercial fisherman, but no minimum size limit or bag limit for recreational anglers. The Illinois DNR is also proposing the same "trophy" catfish regulations as those proposed in this rule package (limit of one channel catfish over 28" and one blue and flathead catfish over 35).
- Ohio allows only one big catfish (over 35" for blues and flatheads, 28" for channels) per day. Only five catfish can be taken per day, all catfish species combined.
- West Virginia allows only two blue catfish to be taken per day, and they do not allow commercial fishing.
- Virginia allows one blue catfish over 34" per day.
- Tennessee allows one catfish over 34" per day with a daily bag limit of five for all catfish harvested.
- Minnesota allows two flatheads to be taken per day and only one over 24". They don't allow commercial

fishing in the Minnesota River.

- Mississippi allows one blue or flathead catfish over 34" per day.
- Oklahoma allows one blue catfish over 30" per day, and flatheads must be at least 20".

The DNR has been coordinating with the Illinois DNR alongside with researchers at Purdue and Eastern Illinois University to develop similar regulations for the effective management of the Wabash River catfish populations. Collaboration with neighboring states is necessary for achieving common goals and protecting resources at a landscape scale.

Sport catfish anglers have been lobbying for this regulation for some time. By limiting the number of large (trophy) catfish that can be taken by anglers, catfish will be able to increase recruitment (survival of younger catfish) and ensure continued trophy angling opportunities. Furthermore, because large catfish eat smaller fish, large "trophy" catfish help control the populations of forage species such as gizzard shad. For example, invasive Asian carp are expanding in the Wabash River. Maintaining strong predator fish populations, such as large catfish, can help counter such invasions.

Regulatory Flexibility Analysis of Alternative Methods:

The DNR has the statutory authority to provide for the protection, reproduction, care, management, survival, and regulation of wild animal populations in [IC 14-22-2-3](#). Furthermore, the DNR has the statutory authority to allow the taking, possession, and sale of wild animals and to establish the methods, locations, and means of taking wild animals, including fish, in [IC 14-22-2-6](#). The Natural Resources Commission has the statutory authority to adopt rules pursuant to [IC 14-10-2-4](#). The definition of wild animal in [IC 14-8-2-318](#) includes fish.

There are no market-oriented approaches needed or available for the effects on businesses as a result of the rule changes. Only two rule changes are likely to affect businesses without creating any administrative costs. If they have a commercial fishing license, they will be limited to the number of large trophy catfish that can be taken per day and take only catfish that are 13 inches or more on rivers and streams. The state of Illinois already has a 15-inch size limit for catfish that are taken by commercial fishing license holders on the Wabash River, and they are in the process of changing it to 13 inches to match this same rule proposal. The Kentucky DNR now has similar catfish changes on the Ohio River for large, "trophy" catfish, with the exception of commercial fishing below the Cannelton Lock and Dam near Tell City in Perry County; Kentucky's regulations allow commercial fishermen who have harvested over 10,000 lbs of catfish in at least two of the last three years and others selected by a drawing (for a total of 50) to take up to four of these large catfish per day.

The DNR believes the amendments proposed are the least restrictive means to achieve the desired outcome. A key factor in our determination is that most catfish do not become sexually mature until they are 15" long. The current 10" minimum size on rivers and streams does not protect the species to reproductive size. After studying the issue and reviewing what other states have enacted or proposed, the DNR believes the 13" minimum size proposed is the least restrictive means. The Department believes that a minimum size increase to 15" in light of the species sexual maturity would be too restrictive on the public and commercial fisherman. Further, except for the large, trophy-sized catfish bag limits, an individual may continue to take or possess an unlimited number of channel catfish, blue catfish, or flathead catfish from a river or stream and the Department has not proposed changes to the limit of 10 catfish that may be taken from a lake or reservoir per day.

The requested changes to [312 IAC 9-8-2](#) would make all of these catfish-related rule changes be applicable to all public water and boundary waters. If inland water weren't included for commercial fishing, it would likely cause commercial anglers to move there to take more catfish, thus increasing the pressure on an already vulnerable population.

A 35 inch blue catfish or flathead catfish weighs about 20 pounds and is 11-12 years old. A 28 inch channel catfish weighs nearly nine pounds and is on average, about 16 years old. A point can be reached where these bigger, older fish are being harvested faster than they can be replaced; a point in which the DNR believes is now the case after five years of study. The proposed limit of one of these big fish of each species per day is aimed at slowing or preventing their overharvest and subsequent decline. The graphs on page 2 show that the decline is dramatic and has only increased over the last five years. Again, commercial fishermen could still harvest one per day of each of these species of catfish above this proposed size, and if they fillet out (process) the fish and put them in their freezer in their permanent residence (in accordance with [312 IAC 9-2-8](#)) or sell them that day, they can catch one more of that size of each of these large catfish the next day. Furthermore, they can still harvest an unlimited number of channel catfish that are between 13" and 28" and between 13" and 35" for blue and flathead catfish. This illustrates the narrow focus the DNR utilized in proposing these amendments to the rules.

As noted in Colombo's research, increasing the minimum size to 13" should lead to increased population abundance and higher angler catch rates and yield because it increases the reproductive potential of smaller/younger fish. Donabauer's research provided that the current 10" minimum size requirement allows harvest of immature fish and thus provides very limited protection for first time spawning catfish; flathead catfish become sexually mature between three to five years and channel catfish at four to five years, yet flathead catfish are already nearly 12 inches long by age three and channel catfish are nearly 12 inches by age four. Donabauer also showed larger, older fish and lower annual mortality and exploitation rates in the noncommercially fished

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