An insider's look at the anatomy of proposed fishing regulation changes at Lake Shelbyville.

New Crappie Regs for Shelbyville

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Advancements in fisheries management have led to a greater understanding of how fishing regulations function. Where appropriate, biologists can now tailor regulations to the variable population dynamics of individual species in specific lakes. Changes in fish population structure and fishing quality usually result in a biologists' review of current regulations or the need for new regulations. Because of crappie's improved status as a sportfish, harvest regulations for crappie have become increasingly popular.

Minimum length limits, usually 9- or 10-inch size limits, coupled with reduced creel limits, have been widely applied to improve crappie harvest and fishing quality nationwide. Minimum length limits have predictable effects for all species, including crappie, usually resulting in increased catch rates, but also a reduction of overall harvest, which is not ideal. In lakes where the survival of crappie fry (recruitment) is poor and growth rates are fast, minimum length limits are effective. If recruitment is moderate to good and growth rates average to slow, protection under a minimum length limit will result in crappie "stacking up" or "stunting" just under the size limit. Crappie recruitment in many water bodies often is highly variable, making the application of appropriate limits difficult over long periods of time.

Since the late 1980s, crappie harvest on Lake Shelbyville has been regulated by a 9-inch, and more recently a 10-inch, minimum length limit and reduced creel limit. Crappie recruitment in the lake has been highly variable, but on average has improved over recent years, especially for black crappie. Analysis of crappie age and growth in spring 2007 indicates the growth rates of all ages of black crappie were below state averages. However, white crappie growth rates were higher than the state average for young fish, but

Crappie anglers and fishing guides were involved in development of new Lake Shelbyville regulations.

New Lake Shelbyville regulations take into account different growth rates for black (left) and white (above) crappie.

slower than the state average for white crappie age 4 and older. Given this information, the current regulation may not be providing the best results for this fishery.

While a few anglers have reported good fishing results for legal-size crappie on Lake Shelbyville over the past several years, the majority of anglers have been catching high numbers of crappie just below the size limit, but relatively few over the current length limit. This has resulted in frustrated anglers and a reduction in the number of fishermen visiting Lake Shelbyville. Since fishing is the most popular recreational activity on the lake, the loss of anglers can have a significant effect on the local economy.

Because of the social and economic importance of the crappie fishery of Lake Shelbyville, a new harvest regulation was considered for crappie in spring 2007. Eight regulations or combinations of regulations were evaluated on their merit to help improve crappie size structure on Lake Shelbyville. A meeting was held to discuss these regulations among crappie fishermen, fishing guides, and state and federal officials. Due to crappie population dynamics and the dynamics of fishing activity after implementation of a new regulation, one alternative regulation was determined to likely produce the best results over the longest period of time.

In summer 2007, the most practical regulation was presented to, and approved by, the Department of Natural Resources' Division of Fisheries Management Review Committee. The new regulation—a little different than what anglers are accustomed to seeing in the Midwest—allows for the continued harvest of 10 crappie that are 10 inches or larger ***but*** also allows the harvest of five crappie less than 10 inches. The goal is to thin the number of crappie under 10 inches slightly, providing the gentle nudge necessary to improve growth, recruitment and fishing quality.

The limit below 10 inches was set at only five fish to prevent potential over harvest of "9-inch" white crappie. Creel surveys found white crappie—about 9:1 ratio of white to black crappie—make up the bulk of the crappies caught and harvested. In addition, because a large majority of the white crappie caught by anglers have been between 9.5 and 10 inches, only a slight boost in growth rates is anticipated to improve size structure.

The new regulation will take effect on April 1, 2008. In time, it should improve angling quality and satisfaction, and maintain—for an extended period of time—a more desirable balance of crappie both shorter and longer than 10 inches.

Improved fishing quality and satisfaction will benefit local fishermen and should attract additional fishermen from outside the immediate area. The additional tourism generated by a high-quality fishery will provide a significant boost to the local economy as well, benefitting fishermen and non-fishermen alike.

Anglers are reminded that "culling" fish (replacing a kept fish with larger fish caught later) is illegal unless they are in a bonafide fishing tournament. Due to the wide publicity of tournament fishing, where culling is legal, many anglers do not realize that this activity is illegal for recreational (non-tournament) fishermen. Illegal culling was one of the many factors considered when deciding the most appropriate crappie regulation for Lake Shelbyville. Even in the best conditions, fish kept for any length of time and later released will suffer some mortality due to extra handling, which adds to the angling mortality of fish populations and is detrimental to the long-term quality of fishing. Death from culling is usually delayed and often fishermen are unaware of the consequences. For the benefit of the resource, the decision to keep or release a fish should be made immediately—and adhered to.

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