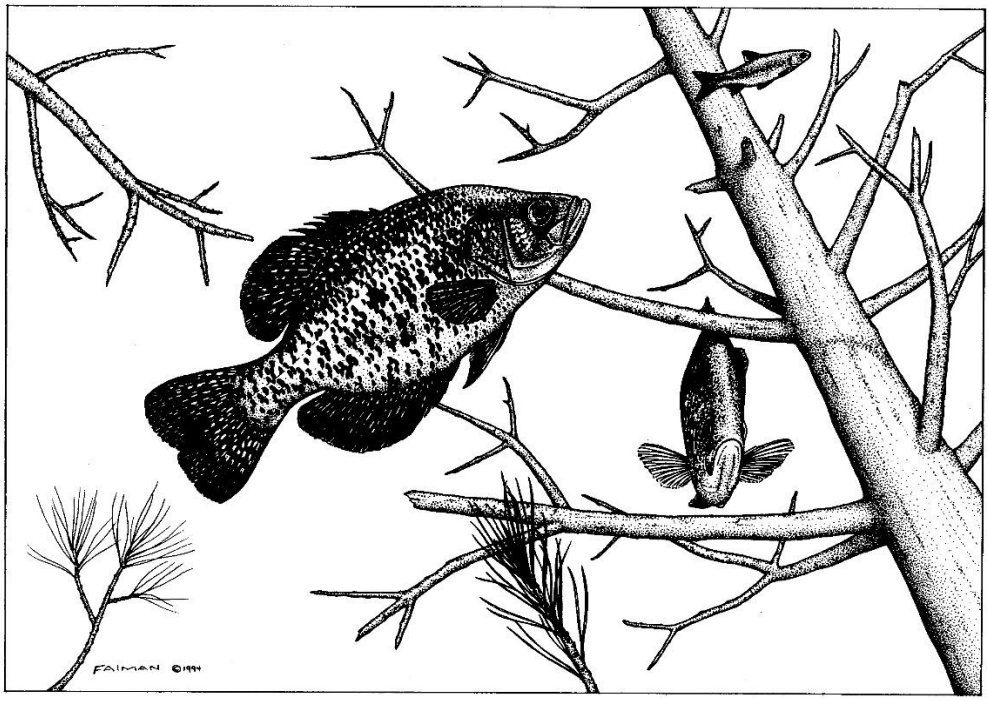
AQUAGUIDE

Missouri Department of Conservation

Managing Crappie in Small Impoundments



Many landowners would like the opportunity to fish for crappie in their ponds and small lakes, but crappie can cause problems unless specific conditions exist.

Requirements for Success

Proper Waterbody Size

Crappie should not be stocked in a pond less than 10 acres.

Clear Water

Before introducing crappie, be sure the pond will be relatively clear most of the time. This means you should be able to see a light object in 24 inches of water except during brief periods (a few days) following heavy rainfall and runoff. Ponds can be too muddy for crappie if the soil uphill is bare or frequently disturbed, or if clay soils with small, suspendable particles exist throughout the pond basin itself. Clarity may also be reduced by excessive growth of microscopic algae which may occur if fertilizers

wash into the pond from surrounding cropfields or pasture. If water clarity is low, too many young crappie will escape the sight-feeding predation of other fish and growth beyond 5 or 6 inches will be very slow.

Largemouth Bass

Predation by largemouth bass in clear ponds is the key to keeping crappie numbers in check. Clear ponds that contain crappie and numerous largemouth bass rarely have excessive numbers of crappie. In fact, crappie anglers may be disappointed in the relatively low number of adult crappie present under such circumstances. But the crappie that do survive are likely to grow at a satisfactory rate (8 to 9 inches in three years). Most crappie enthusiasts would rather have a few large crappies in their pond than none at all.

Rooted Aquatic Plants

Rooted underwater plants are especially important in ponds with crappie because the presence of near shore hiding and feeding habitat is essential to the consistent survival of young bass (future predators of crappie). Pond owners who wish to manage for crappie should value and protect a wide fringe of rooted aquatic plants around the shoreline. For this reason, the stocking of grass carp for plant control in ponds managed for crappie is considered very risky. Even a slight miscalculation of a grass carp stocking rate can lead to the eradication of all rooted underwater plants. If this happens, and the survival of young bass decreases, the stage is set for future overpopulation and stunting of crappie.

Largemouth Bass Management

In addition to ensuring clear water and adequate shoreline habitat for young bass, it is important to protect some segment of the adult bass population from harvest. One approach to ensure adequate predation upon crappie is to protect all bass below a specified size with a voluntary minimum length limit (12, 14 and 15 inches are commonly applied in such situations). If reproduction is high, bass tend to “stockpile” under such a harvest regime, resulting in high numbers of small, hungry and slow-growing bass that will prevent crappie and bluegill from overpopulating.

It may also be possible to manage crappie with a bass population that includes larger fish, but that may require a slot-limit approach in which 12- to 15-inch bass or 14- to 18-inch bass are protected. Some smaller bass are harvested to reduce competition and stimulate growth of fish into the protected length range. Such situations require compliance among anglers and diligence in record keeping to ensure that anglers do not remove too many small bass. Overharvest of small bass under a slot-limit regime may result in overpopulation of crappie and bluegill.

Stocking Minnows

When considering prey (food) for crappie, keeping it simple is best. Crappie will eat some of the same species of microscopic plankton and aquatic insects that are consumed by bluegill and young bass. When they become large enough to consume fish, crappie will eat young bluegill as well. Stocking fathead minnows into a new pond may give crappie a single-season boost in growth, but fatheads usually disappear after a year or two of predation by bass or crappie. Stocking addition prey species, such as gizzard shad, is not recommended. because these can divert the predatory attention of largemouth bass away from bluegill and crappie, allowing both panfish species to overpopulate.

Harvesting Crappie

Once the crappie population is established, regular harvest is essential. This will help to prevent overpopulation. Crappie may be harvested in any number and at any length without fear of eliminating the population. A few adults will always elude the angler’s hook and survive until spawning season, thus ensuring the next generation

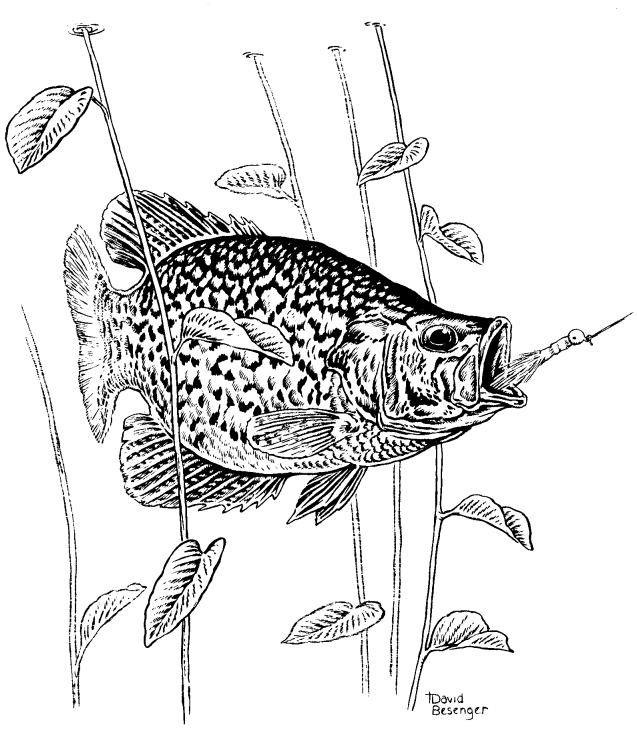
of young. However, landowners who wish to get the most out of their crappie may decide to impose a voluntary minimum length limit of 9 or 10 inches, especially if it seems that numbers are low due to effective predatory control by largemouth bass and that crappie growth is satisfactory.

Fish Attractors (Crappie Beds)

Crappie harvest may be enhanced by placing crappie beds into the pond. Typically, such structures are made from submersed natural woody materials such as cedar trees or discarded Christmas trees. Despite their name, crappie beds are not necessary for successful spawning, but rather serve to attract fish in sufficient numbers to provide fast angling action. Crappie beds placed near shore attract fish during the April-May spawning season, and those placed at depths of 5 to 10 feet are effective in attracting fish during the remainder of the year.

White or Black Crappie?

Two species of crappie are common in Missouri--white crappie and black crappie. Dark pigmentation is arranged in vertical bars on the sides of white crappie, while the dark pigment appears as a uniform mottling or specks on the sides of black crappie. However, males of both species may become very dark during spawning season and closely resemble one another. To distinguish between the species, it may be necessary to count the number of dorsal fin spines, which are typically six in white crappie and seven or eight in black crappie.



Because white crappie have an extremely high reproductive capacity and can quickly over populate, black crappie are the preferred species.

Stocking Crappie

Existing Pond

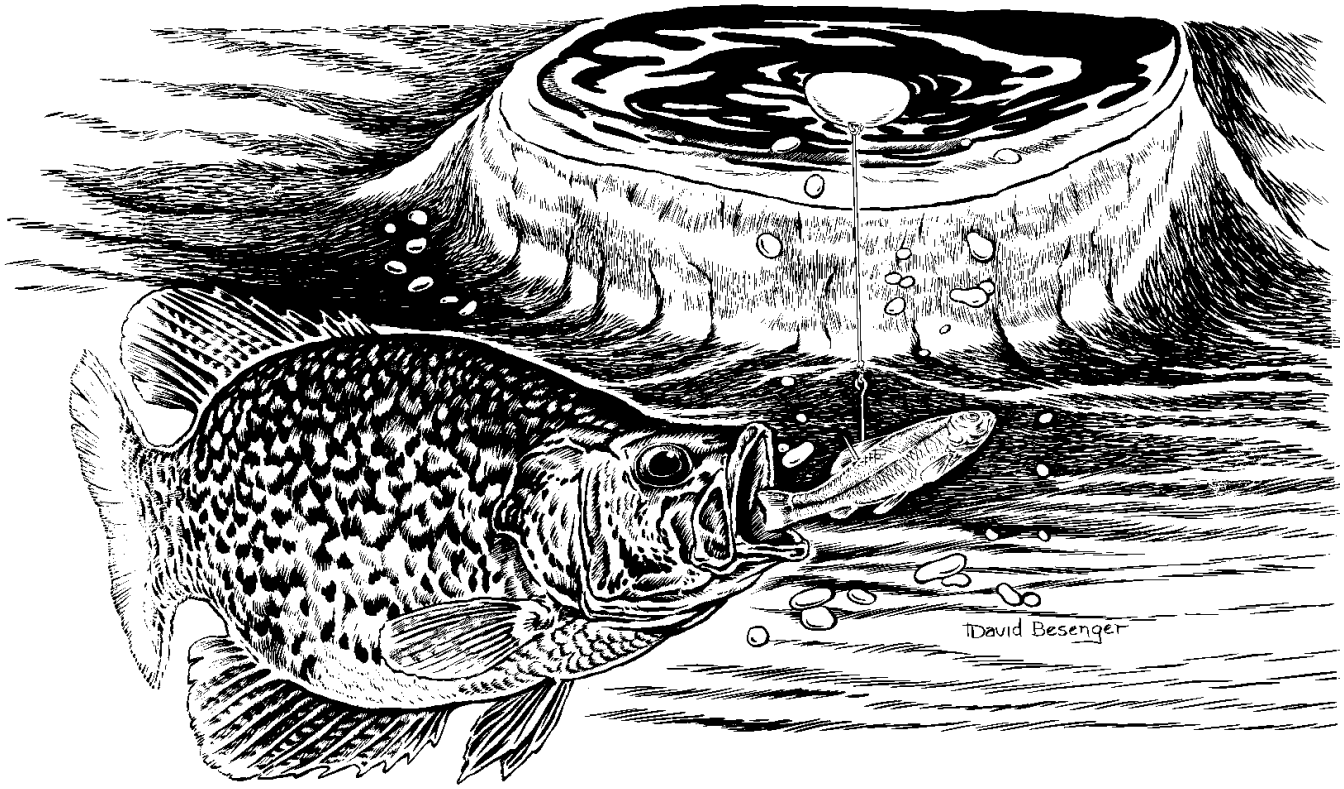
Landowners with existing ponds and an established fish community can probably develop a self-sustaining crappie population within three years simply by stocking 30 adults (mixed males and females) immediately prior to the spawning season. Such fish should be handled carefully and transported in the largest possible container of cool pond or lake water, to prevent respiratory distress. (Note: It is illegal to stock public waters.)

New Pond

Landowners with new ponds containing no fish have two options for establishing a crappie population. A conservative landowner will wait a couple years for the bass/bluegill community to become partly developed, then stock adult crappie as noted above. A landowner confident in the future suitability of the pond for crappie can purchase and stock 2-inch crappie fingerlings in June provided the bass present are not larger. Crappie stocking densities between 50 and 200 per acre have proven successful. On the high end of the crappie stocking density range, some reduction in the typical stocking density of bluegill (500/acre) and channel catfish (100/acre) fingerlings may be desirable to minimize competition for food among the various species. Landowners can favor one species or the other, depending upon their objectives.

Successful management of crappie in ponds and small lakes requires clear water, rooted aquatic plants, and sufficient numbers of adult largemouth bass to control the numbers of young crappie. If any of these conditions are lacking, an overpopulation of crappie may result. Crappie fishing can be enhanced by adding fish-attracting structures, and either species of crappie can be managed, depending on personal preference.

For further information about managing crappie contact your local MDC office or visit **mdc.mo.gov**.



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