

"... from a long and intimate acquaintance with its merits, I hesitate not to pronounce it **the fish for the million**."

> J.P. Kirtland The Natural History of Useful Aquatic Animals, U.S. Commission of Fish and Fisheries, 1884

The differences between these two closely related species are not as black and white as their common names imply, but they do have distinct features and preferences. Black crappies are generally darker than white crappies. Both species have black spots, but the black crappie has many more in a mottled pattern on the back and sides. White crappies tend to be paler and have spots arranged in loose, narrow bands running down their sides.

Both crappies are found in Wisconsin but because the black crappie has a more northern range, it is much more abundant in the state than the white crappie. The white crappie is more abundant in the Southern United States than the black crappie. In southern Wisconsin, both species may exist in the same water bodies.

White crappies are more tolerant of muddy water than black crappies. Black crappies more often inhabit lakes and river backwaters while white crappies are found more in slow-moving river channels. Both species have a preference for open water instead of taking shelter in weed beds like many other panfish. Crappies are members of the sunfish family (*Centrarchidae*), which also includes bluegill, pumpkinseed, and largemouth and smallmouth bass. Crappies fall into the general panfish category because they are small fish (rarely larger than a foot long in Wisconsin) sought primarily for food. Still, crappies do provide anglers considerable sport. While crappies are not known as great fighters at the end of the line, catching crappies takes a certain finesse because they have a very thin membrane around their mouths. Many an angler has lost a good-sized "papermouth" by using too much force setting the hook.

## Identification

Crappies are not just black or white. Both species have olive-colored backs — though white crappies tend to be a bit lighter — with blue, green and black spots on their silvery-white sides. Black crappies have greenish-yellow bellies while white crappie's bellies are more yellowish-white. However, because color and pattern may vary depending upon the water clarity, season and the age of an individual fish, it is not the most accurate method of identification.

A more reliable, though still not infallible, way to tell the black and white crappie apart is by the **dorsal** (back or top) fin. Like all sunfish, crappies are **spiny-ray** fish, meaning their dorsal fins have **spines** (rigid supports) and **rays** (flexible supports). Crappies actually have two dorsal fins, but they are connected and appear as one. The black crappie usually has 7 or 8 spines while the white crappie normally has only six (Fig. 1).

Crappies are very thin, perhaps the thinnest of all sunfish. The black crappie is a bit deeper-bodied than the white crappie. It's possible for crappies to reach 18 inches in Wisconsin, but 8- to 10-inch crappies are much more common.

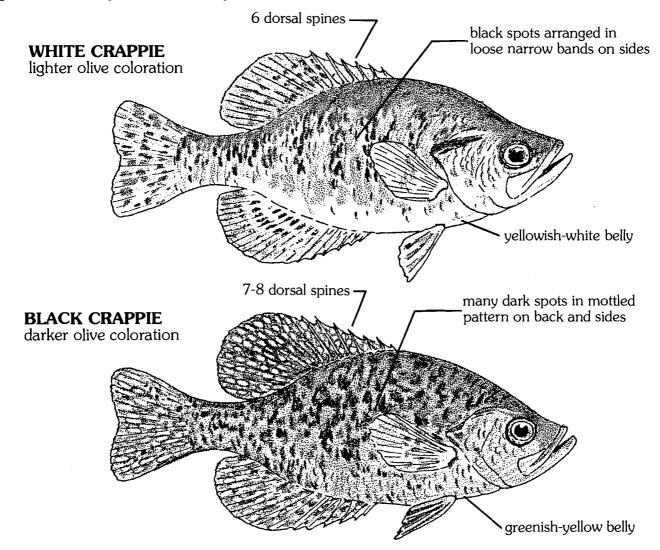


Figure 1. Some comparisons between white and black crappies.

### Distribution

Thanks in part to extensive stocking programs from the 1800s through about 1920, black and white crappies were introduced in waters statewide where they originally were not found. Fish managers captured crappies that were caught in backwater Mississippi River pools left behind by receding waters and stocked them into inland lakes and streams. These programs were called "fish rescues," because the fish left in the pools often died.

Black crappies are more prevalent in the glacial lakes formed as glaciers retreated 10,000 years ago, though they are also found in river systems. White crappies are more common in rivers and streams.

Crappies are found throughout the Mississippi River valley and most of the eastern United States. Stocking has increased their range to include isolated pockets throughout the west and along the west coast. Black crappie range extends into southern Canada, but white crappies are at their northern-most reaches in Wisconsin. (Fig. 2)

## Habits and Habitats

Although black and white crappies reside in some of the same waters (such as the Mississippi, Wisconsin and Fox rivers and their tributaries and backwaters), black crappies prefer clearer, quieter water than white crappies. White crappies flourish in warmer, siltier, more **turbid** (containing suspended solids) water. Black crappies are common in the clear, cool lakes of Wisconsin's North Woods — habitat where white crappies are not found (Fig. 3).

Crappies like open water but they also like structure, such as submerged stumps and logs, rocks and rocky ledges, deep pools in rivers, and emergent aquatic vegetation if it is not too dense. Crappies have been known to do well in lakes with large carp populations. By opening up dense plant growth, carp create the open water crappies prefer. Crappies are also more tolerant of the turbid conditions carp create by roiling, or stirring up, water. Because of this association, some anglers blame crappies for changes in fish population which are actually more attributable to carp and the environmental factors which favor carp.

Crappies feed on small aquatic organisms called zooplankton, and aquatic insects and insect larvae that live on or near such structures. Crappies have numerous **gill rakers** (comblike structures within the gills) that enable them to filter large amounts of food from water. These small food items make up almost all of the diet of small crappies, and can make up a major portion of larger crappies' diets during parts of the year. However, older crappies feed primarily on small fish like minnows and immature bass, sunfish and perch.

A gregarious fish, crappies travel and feed in loose schools for much of the year. They are also

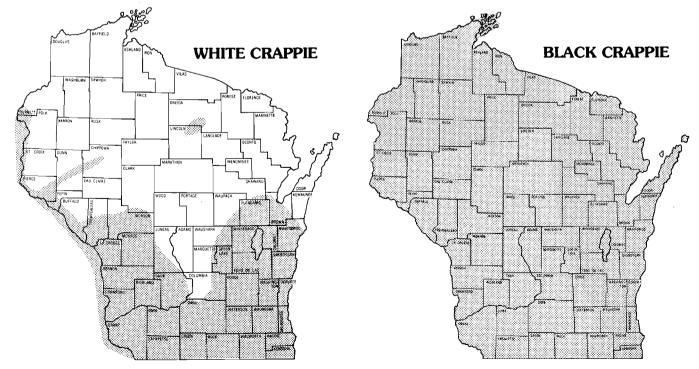


Figure 2. Generalized distribution of white and black crappies in Wisconsin.

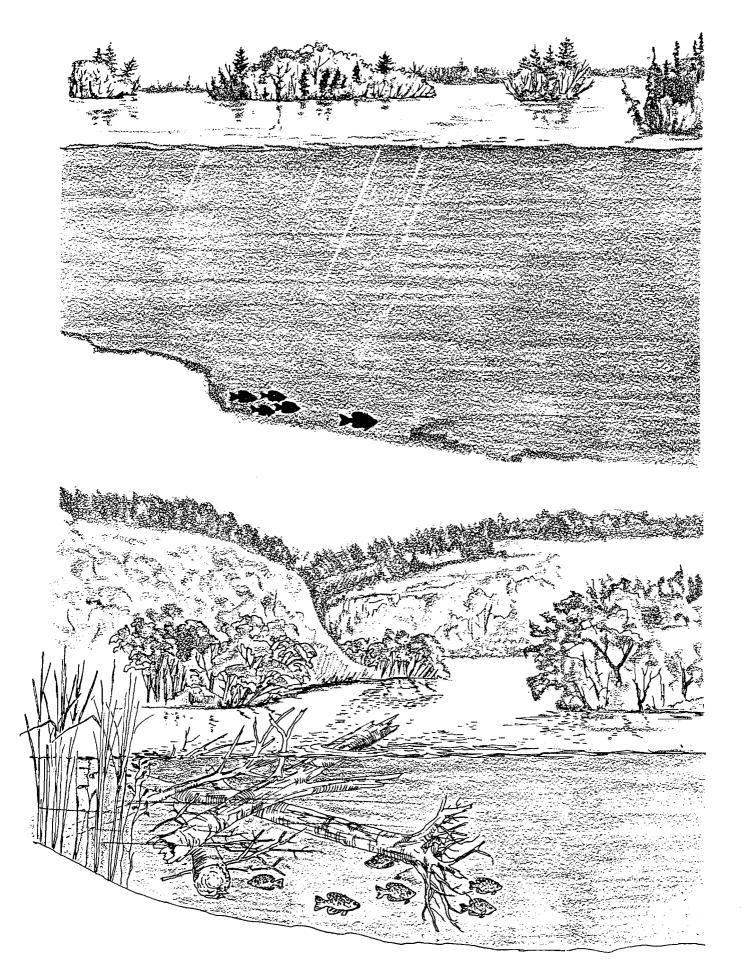


Figure 3. Black crappies (above) prefer clear, quiet waters of lakes while white crappies (below) prefer warmer streams.

migratory fish, changing habitat in response to temperature, oxygen, seasons and available food. Crappies inhabit shallows during their spring spawn, moving to deeper water during the summer. They are found at varying depths during the winter. Although crappies are tolerant of low levels of dissolved oxygen in water, they still seek out oxygenated water. In the summer this means they are often found in the **thermocline** (a depth at which water temperature changes rapidly), where the water is cooler but still contains dissolved oxygen.

## Life cycle

Crappie spawning activity peaks in May and June when water temperatures are between 61 and 68 degrees, though spawning may continue into July. Like other sunfish, crappies are nest builders but they are perhaps the least particular in their nest-building habits. Crappies search out nest spots in deeper water than any other sunfish between 1.5 to 6 feet deep or deeper. This is another reason crappies can coexist with carp. Crappies are not disturbed by carp as much as other sunfish that build their nests closer to shore. Crappies usually nest in colonies that may include as many as 35 nests, 3 inches to 6 feet apart. Males construct disc-shaped nests near emergent vegetation using their caudal fins like brooms to sweep away silt and debris. Unlike bluegills and pumpkinseeds that are meticulous in their nest construction, crappies spend little time building their nests, which when finished, may be just barely discernible from the surrounding area.

Males aggressively defend their nests, chasing and biting at intruders. A female may be chased away several times before the male will admit her for spawning. When a pair does spawn, they swim in circles around the nest until they come to rest with their bellies touching and pushing against each other. Both fish guiver as the female releases her eggs and the male releases his **milt** (sperm). This process is usually repeated several times over several hours. Females may spawn with more than one male and may produce eggs several times during the spawning period. An individual female produces several thousand to several hundred thousand eggs depending upon her age and size. Following spawning, males guard the eggs until they hatch in one to two days at optimum temperatures of 65 to 70 degrees (Fig. 4). Crappie **fry** (newly hatched fish) congregate in large schools in shallow water. Crappies grow fairly rapidly in the first year, reaching 2.5 to 3 inches. Crappies can mature in their second year,

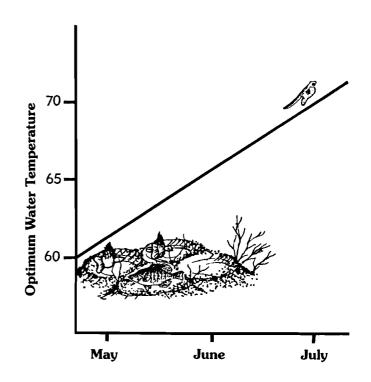


Figure 4. Crappie spawning peaks in May and June. Hatching occurs in 1-2 days.

though most mature in their third to fourth year. In Wisconsin, most crappies don't live much past their fifth year, grow larger than 12-14 inches, or weigh more than a pound.

Additionally, crappie growth rates can be very irregular. Fisheries biologists refer to all the fish spawned in the same season as a **year class**. Crappies are known for having very irregular year classes, even within the same lake. Some years, a year class may be smaller than average. Every three to four years the opposite may happen and there will be a year class of larger than average crappies.

The state record white crappie weighed 1-pound, 5 ounces. It came from Petenwell Flowage in Adams County in 1996. The state record black crappie came from Gile Flowage in Iron County in 1967. It weighed 4 pounds, 8 ounces. The world record black crappie, caught from a canal in Louisiana, weighed 6 pounds; the world record white crappie weighed 5 pounds, 3 ounces and was caught in 1957 in Mississippi.

Age (yr.)	Length (in .)
1	3.0
3	7.2
5	9.6
10	13.1

## **Fishing for crappies**

Crappie fishing is very popular in the spring, when aggressive males will strike at almost anything that comes near their nests. Crappie fishing during the summer and fall is more difficult, as crappies seek out deep holes or deep submerged brush for shelter. Ice fishing for crappies is also very popular on some lakes, as crappies remain active all winter.

Anglers are almost certain to have their best success near submerged structures. During spring spawning, fish near emergent vegetation close to shore. In summer try deep holes or river channels, especially if you find one with sunken logs or brush piles. Some anglers even refer to these spots as "crappie holes," because of the tendancy for crappies to congregate in them. If you have no success in one area, try another spot because crappies move around freely. They can be found at almost any depth from the surface to the bottom, depending upon season and weather. Crappies feed throughout the day with peaks in the evening and early morning.

Light tackle is almost universally preferred for fishing crappies, which rarely grow larger than 2 pounds. Anglers also use light tackle because of the paper- thin membrane surrounding the crappie mouth; it is easier to rip the hook out of the mouth with heavy tackle. The more sensitive the rod the easier it is to detect a crappie's light bite. Crappies don't strike baits hard; they sort of gently suck the bait into their mouths.

Small minnows, sometimes called "crappie minnows," are the most popular crappie bait, often used in combination with a light jig. Crappies will also hit on worms, insect larvae and a wide variety of artificial lures such as spinners and spoons. Wet and dry flies are popular when crappies are on their spawning beds. Small, tearshaped hooks make good winter bait used alone or in combination with grubs (Fig. 5).

Crappie fishing is currently open year round with a generous bag limit. Check the current Guide to Wisconsin Hook and Line Fishing Regulations for up-to-date information.

### Management

Overpopulation is a major concern with crappies, especially white crappies. Overpopulation creates competition for food and habitat, often resulting in stunted fish. To help keep populations in check, crappie harvest is encouraged through inclusion in the liberal panfish bag limit category. In some lakes, crappies and other panfish are removed by netting in attempts to reduce populations. These efforts are

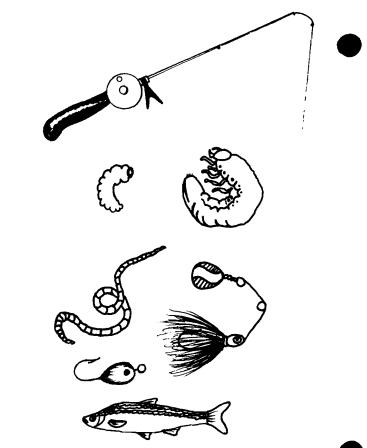


Figure 5. A wide variety of baits and lures are used to catch crappies.

short-lived, because of the crappie's prodigious nature. In lakes that are very overcrowded with extremely stunted populations, chemical treatment will remove all fish, and the lake can be restocked.

### **Environmental concerns**

Crappies are relatively small, short-lived fish that do not accumulate toxins or heavy metals in their bodies to the extent that larger fish do. Crappies are not usually listed on the Department of Natural Resources' Fish Consumption Advisory. However, anglers should always consult the advisory for the lakes and rivers in which they are fishing.

# Additional reading

#### Becker, George C., **Fishes of Wisconsin**, University of Wisconsin Press, Madison, 1983

McClane's New Standard Fishing Encyclopedia and International Angling Guide, Holt, Rinehart, and Winston, New York, 1974

Phillips (Gary L.), Schmid (William D.) and Underhill (James C.), Fishes of the Minnesota Region, University of Minnesota Press, 1982

