Newly hatched fish, or fry, are stocked into a hatchery pond (100,000 fry/acre) where they eat natural food items. The fish are harvested in the fall and stocked when they are 4 inches.

Before stocking, a sample of fish is sent to the lab to determine triploid percentage.

The target is 100% to eliminate unwanted reproduction, but 90% is considered good. The process, although gaining in effectiveness, is still an art with many tricks yet to be discovered.

Fisheries biologists now have a better way to manage crappie populations and anglers can catch bigger crappie in small impoundments.

Stocking:

Magnolia crappie are currently stocked into our state fishing lakes and state park lakes where before crappie fishing was not offered or suffered from overpopulated crappie.

Anglers can now enjoy crappie fishing in small impoundments without sacrificing fishing quality.

The Bob Tyler Fish Hatchery produces the Magnolia Crappie.

The Bob Tyler Fish Hatchery is one of two hatcheries operated by the Fisheries Bureau of the Mississippi Department of Wildlife, Fisheries and Parks.

Hatcheries are one of many applications used by Fisheries Biologists to effectively manage our valuable fishery resource by annually producing and stocking a variety of sport fishes in Mississippi's public waters.

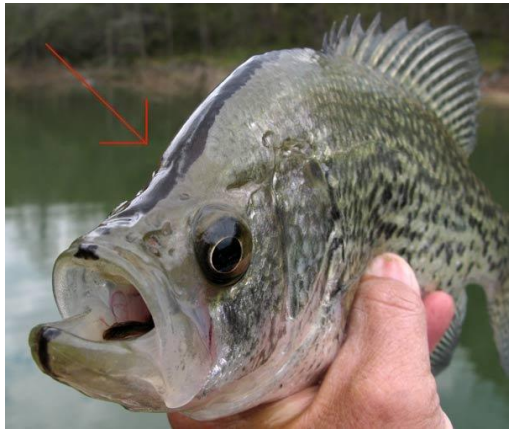
The Bureau manages public waters totaling over 230,000 acres of state lakes, reservoirs and community assistance ponds and over 50,000 miles of streams and rivers.

The hatchery raises 1-2 million fish every year!

Magnolia Crappie

Bob Tyler Fish Hatchery And Visitor Education Center

Phone: (662) 563-8068
Web: www.mdwfp.com
Address: P.O. Box 100, 457 CR 36, Enid, MS 38927



Crappie Management:

White crappie (Pomoxis annularis) and black crappie (Pomoxis nigromaculatus) are popular sport fish. Some of the best crappie fishing in North America occurs in Mississippi.

However, management of crappie populations in small impoundments presents some difficult challenges. Crappies are prolific spawners that can quickly overpopulate small impoundments resulting in many undesirable fish less than 6 inches.

Fisheries biologists have tried to manage this problem but strongly discourage stocking crappie into small impoundments. The result was the Magnolia Crappie.

In the 1990s the Mississippi Department of Wildlife, Fisheries and Parks and the University of Mississippi teamed up to create a sterile crappie that would not overpopulate a small impoundment. The result was the Magnolia Crappie.

This crappie is a cross between the female white crappie and the male blackstriped black crappie. The blackstriped crappie has a dark stripe from the dorsal fin down the top of the head and mouth to the throat. This is a naturally occurring color variation.

The offspring retain this black stripe making it easy for biologists to monitor the population after stocking.

Fertilized eggs are pressure shocked to induce triploidy which causes sterility. Triploid fish have three sets of chromosomes instead of the normal two sets (diploid). Because this crappie cannot reproduce they may put more energy into growth and may grow larger than a normal fish in a similar environment.

The Process:

Spawning may begin in February and extend into May at water temperatures of 59-65°F.

Crappie are collected from the wild and transported back to the hatchery for spawning.

At the hatchery eggs are collected in a small plastic bowl by gently squeezing the abdomen of the female.

Milt is obtained from the male by removing and then chopping up the testes. It is activated with a small amount of water and quickly poured over the eggs.

The eggs and milt are gently stirred together for 1-2 minutes using a turkey feather. The turkey feather is used because it is gentle on the eggs.

After 5 minutes the fertilized eggs are transferred into a pressure chamber and subjected to an 8,000 psi pressure shock to induce triploidy.

Then, the eggs are poured from the pressure chamber into a bowl and rinsed.

Next, they are transferred to a McDonald hatching jar for incubation. The eggs hatch in 2-3 days at 62-65°F.