SPECIES PROFILES FOR STOCKING

When considering what fish to stock, determine your objectives in terms of food production, recreation, aesthetics or trophy angling and how much time you have to devote to pond management. Although many types of fish could be stocked into recreational ponds, few have the characteristics needed to provide quality fishing year after year.

Bream

The term bream refers generally to any of the sunfishes, including bluegill, redear, green sunfish, their hybrids and other species. Although their general appearance and food habits are similar, they can behave very differently in farm ponds, often with disappointing results. For this reason, it is important to properly identify bream being stocked into recreational ponds.

Bluegill: Bluegill are probably the best fish available to produce forage for bass, panfish for the dinner table and good light-tackle fishing. These fish are well-adapted to pond conditions and serve as a critical link in the food chain by consuming insects, snails, occasional plant material, small worms and microscopic animals while providing high-quality food for largemouth bass. They also provide most of the fishing in a well-managed pond. Bluegill normally live about five years if not caught or eaten by larger fish first. They can spawn at about 3 inches long and at one year of age. Bluegill should be stocked into new ponds in the fall and allowed to spawn before stocking bass fingerlings the next spring. The bluegill spawning season lasts from April-September in Louisiana, beginning when the water temperature reaches 70-75 degrees F. A quarter-pound female will lay approximately 12,000 eggs; very large females may lay up to as many as 60,000. After spawning, the male bluegill guards the nest. In natural conditions, many nests are clustered together, called spawning beds. In Louisiana, mature bluegill can spawn as many as five times in a season.

Although bluegill provide an abundant source of forage to support bass populations, they will overpopulate and stunt if not tightly controlled through fishing and bass predation. An additional problem occurs when bluegill become so numerous that they interfere with bass spawning and reproduction. For this reason, pond owners should avoid excessive cover in bass-bluegill ponds, especially rooted aquatic vegetation.

The coppernose bluegill is a subspecies native to the Atlantic coast region from Florida to South Carolina. Mature coppernose have a distinct copper or cream-colored bar across the nose, extending back to the gill cover and often have a thin yellow or white margin on their fins. Immature coppernose have darker and more regular bars along their sides than common bluegill. Coppernose are aggressive feeders and may grow faster or larger than common bluegill, but they have not been conclusively demonstrated as a superior fish for stocking in Louisiana. (see Figure 15)

Redear Sunfish: This sunfish also produces a good forage base for bass production, but it produces the best results when stocked as a supplement to bluegill. When stocking a new pond, you can substitute approximately 20%-30% of the recommended bluegill with redear. To maximize survival, redear (or any other species) under 5 inches in length should not be stocked into existing bass-bream ponds.

Redear should be managed in the same manner as bluegill, but they will spawn earlier in the spring and normally spawn only twice in a season. Juvenile redear can usually be recognized by eight dark, often

broken, vertical bands on their sides. Although their food habits are similar, the redear sunfish focuses more attention on snails when they are available, and bluegill prefer insects. This feeding behavior has earned the redear the nickname "shell cracker." (see Figure 16)

Hybrid Bream: Hybrid bream generally grow faster than pure bluegill or redear. Since they are aggressive feeders and usually accept pelleted food readily, hybrid bream are a good option if bream fishing is the objective, but they perform poorly as a sustained forage for bass production. Two common types of hybrid bream are produced: redear male x green sunfish female and green sunfish male x bluegill female crosses. Both crosses produce about 70% males, but some crosses, such as bluegill male x green sunfish female, produce almost 100% males.

Hybrid bream are usually fertile, although they may not spawn reliably. When they occur, offspring of hybrids or their backcrosses to parent species are generally mongrels that cannot support fishing or bass predation for more than a year or two. For this reason, draining or renovation is often required every three to four years in ponds with hybrid bream.

Green Sunfish: This sunfish species is generally regarded as a trash fish. Every effort should be made to inspect bluegill or redear fingerlings to be sure they are not contaminated with green sunfish. For the same reasons, assorted or wild bream are not recommended for pond stocking. The dark spot normally found at the rear of the dorsal fin in bluegills is faint or absent in green sunfish juveniles, which tend to have a darker background color.

Green sunfish tend to overpopulate and stunt at extremely small sizes, and almost always reach densities which completely prevent bass reproduction. At this point, pond owners have few options other than to drain or poison the entire fish population and restock. Green sunfish are particularly hardy fish and sometimes difficult to kill. Even when ponds are drained, eggs of this species may survive in puddles or moist soil. (see Figure 17)

Bass

Largemouth Bass: The largemouth bass is the top-level predator in most recreational ponds and many natural habitats in Louisiana. This fish is widely sought both for sport and as food. As a result, it is often stocked in ponds too small to support self-sustaining populations adequately. The largemouth bass adapts well to ponds of one acre and larger. It uses a variety of foods including fish, crawfish, insects, frogs, ducklings, rodents and other animals.

Largemouth bass can spawn successfully in most ponds and grow rapidly if sufficient food and space are available. In Louisiana, they can reach sexual maturity at one year of age. Nesting on hard substrates, sand or gravel usually begins in the spring when water temperatures reach 60 to 65 degrees F. Mature females produce from 2,000 to 7,000 eggs per pound of body weight, which the male guards during the 2- to 4-day incubation period after spawning.

Stocked alone without some forage species, largemouths usually stunt and reproduce poorly. They require other fish, such as bluegill, as food to allow for good growth and spawning. Largemouth bass should generally be stocked in late spring, the year after bream have been stocked, so adequate forage will be available to support survival and growth. In most areas, largemouth bass normally live about six to eight years if not caught by fishermen or eaten by larger fish.

Florida-strain largemouth bass have become widely sought after in recent years because of their faster growth rate and larger maximum size than native populations of largemouth. Although they often attain trophy sizes in large ponds and reservoirs, these fish may not perform as well in ponds less than three acres, or where fast-moving cold fronts can drop temperature suddenly. (see Figure 18)

Catfish

Channel Catfish: This hardy fish grows fast and readily takes artificial food in a pond environment. Channel catfish often have difficulty reproducing if bass or bream are present in the same pond because of the extreme vulnerability of their fry to predation. This species feeds primarily on invertebrates, such as insects and crawfish, as well as on fish and frogs. In recreational ponds, channel catfish will eat a wide variety of foods, including plants and decaying organic matter. Channel catfish are generally stocked into ponds in fall before stocking bass the next spring, but they can be stocked at almost any time in catfish-only ponds.

Channel catfish normally live six to eight years. If suitable spawning areas are present, such as large pipes, cans or boxes, they will spawn readily in ponds. If bass and/or bream are present, almost all eggs and fry will be consumed, and catfish reproduction can be encouraged. If stocked alone, catfish will tend to overpopulate and stunt, so spawning should be discouraged. When stocking channel catfish in established bass-bream ponds, use those more than 10 inches long. (see Figure 19)

Blue Catfish: This species is similar to the channel catfish, although not quite as hardy. In ponds, their diet is similar to that of channel catfish, but they prefer to feed primarily on fish, such as bream. For this reason, they may be preferable in some situations where bream tend to overpopulate. Blue catfish also tend to grow somewhat larger than channels after the second year of life. Unfortunately, it is usually much harder to find blue catfish fingerlings. Blue catfish fingerlings can be distinguished from channel catfish fingerlings by the absence of spots. They also have smaller, lower-set eyes. In general, the same stocking and management recommendations apply for both species. (see Figure 20)

Forage Species

Golden shiners are sometimes stocked as a supplement to bluegills for bass forage in alkaline waters or areas of high rainfall. Fathead minnows (1000/acre) or threadfin shad can be stocked into farm ponds to help establish first-year bass populations.

Fish to Avoid

Crappie: (white perch, sac-a-lait, flathead catfish (Opelousas or yellow cat), green sunfish, bullheads (mudcats), carp, buffalo or other rough fish should never be stocked into recreational fishing ponds. All will eventually overpopulate and ruin fishing. Crappie, also known as white perch or sac-a-lait, should never be stocked into recreational ponds smaller than 10 acres because they will overpopulate and stunt, eventually preventing bass reproduction. Even in large ponds of 10 acres or more, they require careful management to prevent problems. Avoid stocking wild fish or fish caught from other waters; they can introduce diseases to your pond.

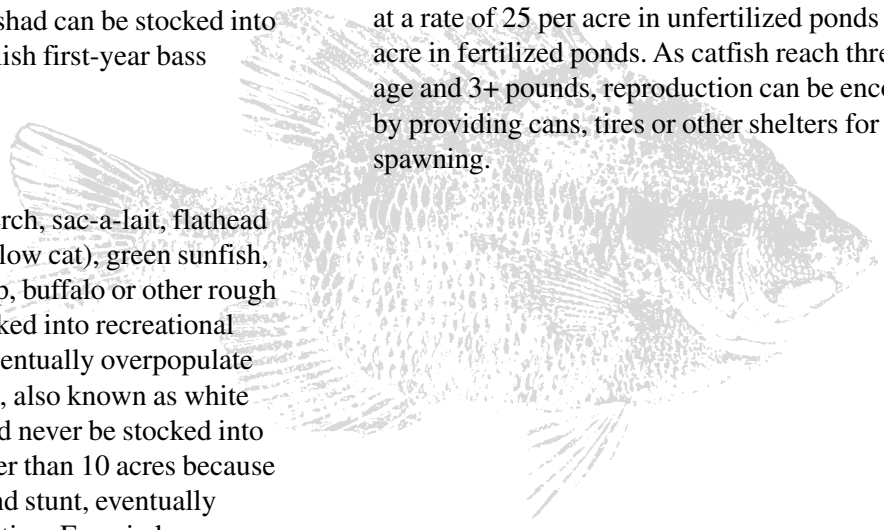
Recommended Stocking Combinations

Bream-Bass-Catfish Combinations (Fish per Acre):

For 1 Acre or Larger Ponds

	Bream		Bass	Catfish
	Bluegill	Redear		
	1000		100	100 (fertilized)
or	700	300	100	100 (fertilized)
or	500		50	50 (unfertilized)
or	350	150	50	50 (unfertilized)

Bream (1- to 3-inch) should be stocked in the fall with bass (1- to 3-inch) stocked the following spring. If both species must be stocked in the spring, stock 20 6-inch bass and 30 3-inch or larger bream per acre. Double these rates for fertilized ponds. Catfish can be stocked in the fall or spring in new ponds, but they should be at least as large as any bass fingerlings present. Supplemental stocking of catfish into existing bass-bream ponds should use 10-inch fish (or larger) at a rate of 25 per acre in unfertilized ponds or 50 per acre in fertilized ponds. As catfish reach three years of age and 3+ pounds, reproduction can be encouraged by providing cans, tires or other shelters for spring spawning.



Bream-Bass Combinations (Fish per Acre):

For 1 Acre or Larger Ponds

	Bream		Bass
	Bluegill	Redear	
	1000		100 (fertilized)
or	700	300	100 (fertilized)
or	500		50 (unfertilized)
or	350	150	50 (unfertilized)

Again, 1- to 3-inch bream are stocked in the fall with 1- to 3-inch bass stocked the following spring. Advanced fingerlings may be stocked together in the spring as described above.

Catfish-only Stocking:

Especially Recommended for Ponds Under 1 Acre

100-200 fish per unfertilized acre,
200-400 fish per fertilized acre,
300-600 fish per acre when fed daily

Catfish-Hybrid Bream Combinations (Fish per Acre):

Especially Recommended for Ponds Under 1 Acre

Hybrid Bream	Catfish
150	50 (unfertilized)
300	100 (fertilized)
600	200 (fed daily)

Catfish reproduction should not be encouraged with catfish-only or catfish-hybrid bream stocking. Do not provide cans, tires or other shelters for spawning. Restock with catfish when most of the original stock has been removed.

Figure 15. Bluegill

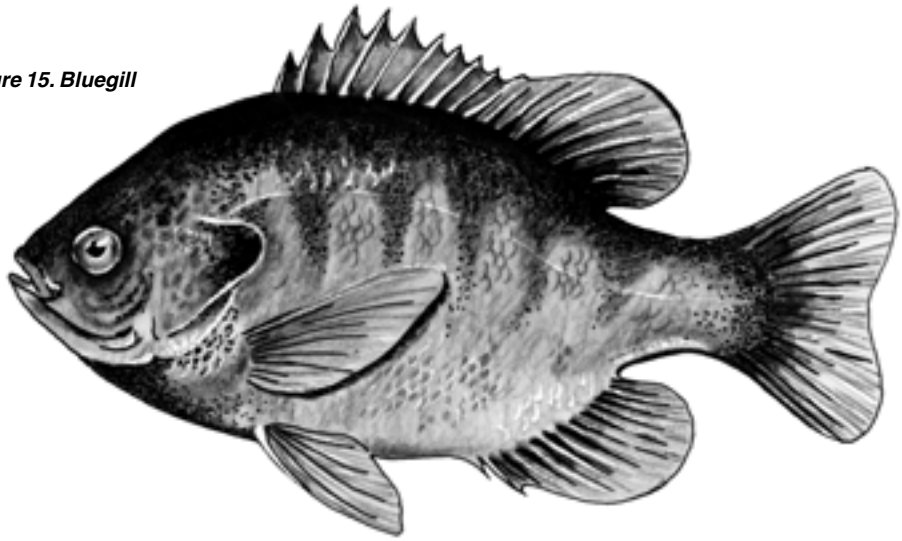


Figure 16. Redear Sunfish

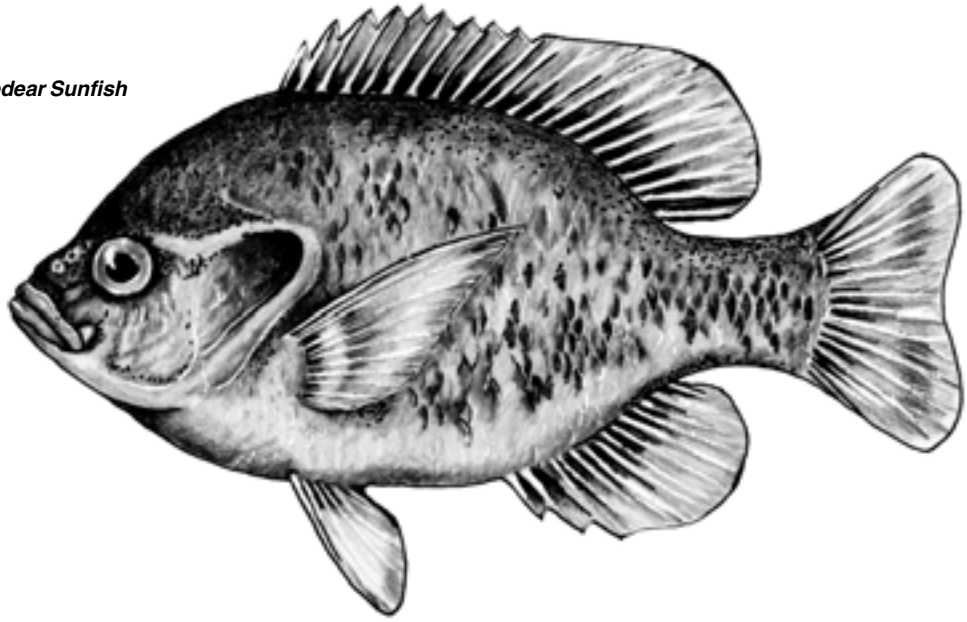


Figure 17. Green Sunfish

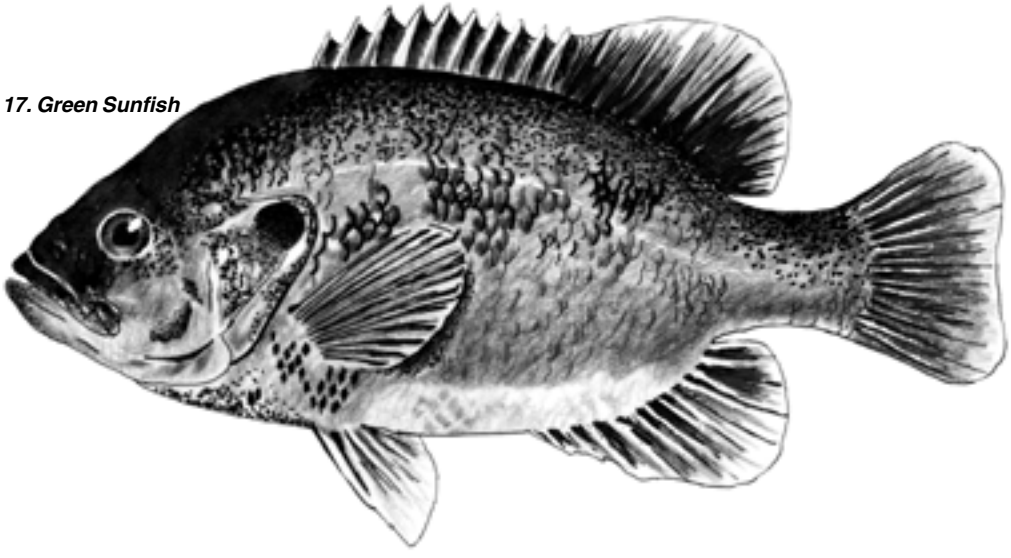


Figure 18. Bass

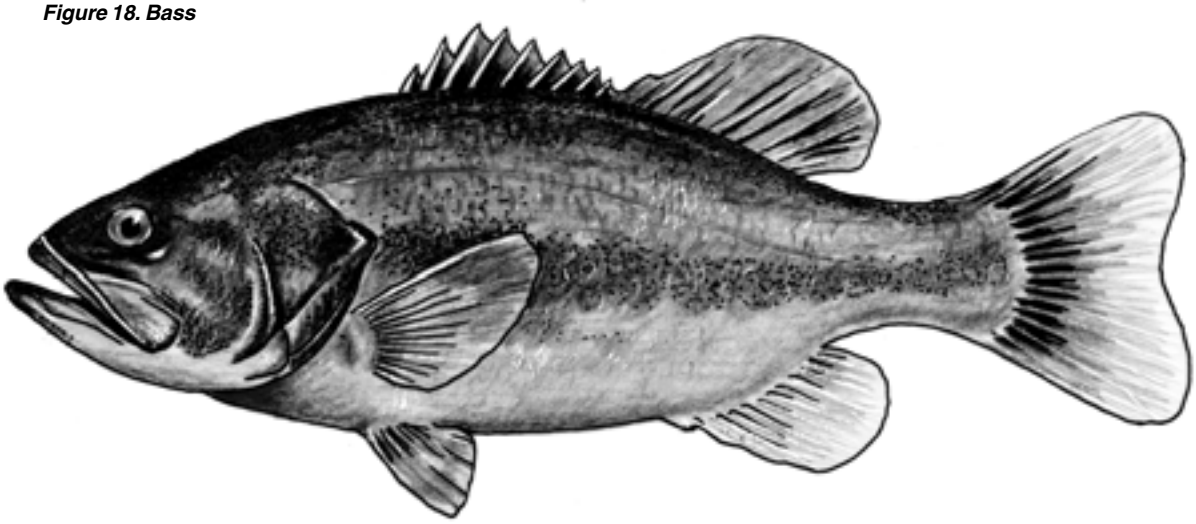


Figure 19. Channel Catfish

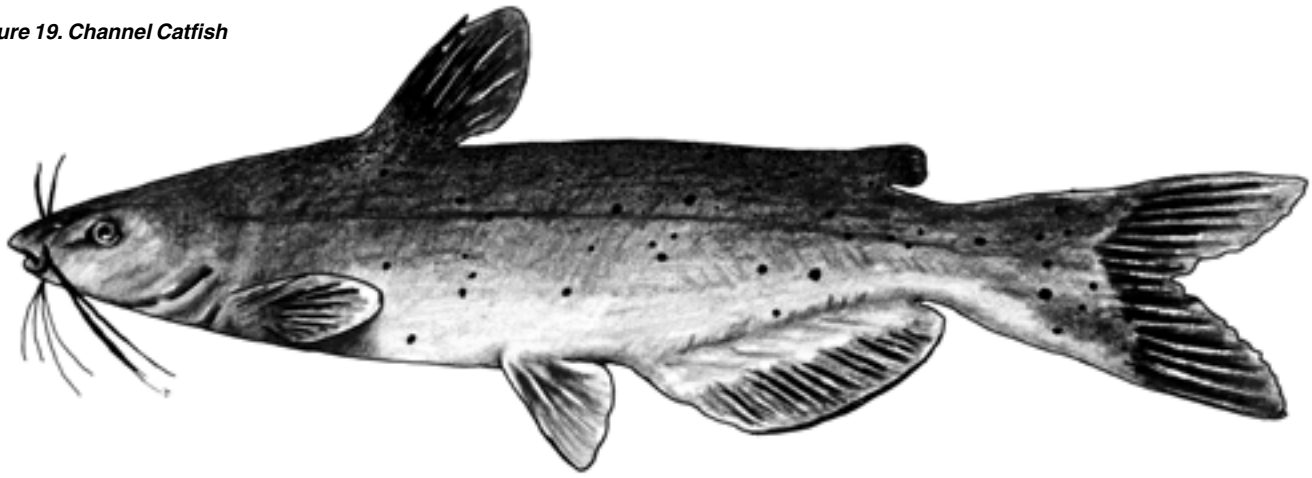


Figure 20. Blue Catfish