

Arkansas Pond Bulletin

April 2023

“Quick” Hit: Supplemental Stocking

Warming weather and blooming plants coincide with increasing interest in fishing. This is a time when many pond owners consider stocking their ponds. What and how many to stock into newly built or renovated ponds is fairly straightforward and publications like the MP360 explain how to go about it; following proven strategies that yield consistent results throughout the southeastern United States. Stocking fish into an older pond with an established fishery, is far less standardized.

Supplemental stocking is the term used when one is stocking fish into an already established fishery, one with predators and prey already fully grown and reproducing. The goal is usually to fill an actual, or perceived, shortage of a certain species or to introduce a new species for the purpose of providing forage, sport, vegetation control, or parasite control. This practice is less standardized because what gets stocked, how many get stocked, and what size get stocked depends heavily on the species and abundances already in the pond (or what aquatic pest you are trying to control). Below are some general situations where supplemental stocking is appropriate.

- *Maintaining excessively high forage abundance*

Owners seeking to grow very big largemouth bass and crappie are encouraged to overload their ponds with forage species such as bluegill (500-2,500/acre), golden shiner (10-50 lbs/acre), threadfin shad (500-1,000/acre), red swamp crayfish (50-100 lbs/acre), and in very specific situations, goldfish (50-100 lbs/acre) and tilapia (50-100 lbs/acre) can be appropriate. Annual supplemental stocking of these species at the rates recommended is very expensive, but also often the price one must pay to achieve truly exceptional predator fish production (raising a crop of wolves ain't cheap). These forage fish are meant to be eaten, so small to intermediate individual sizes typically recommended for new pond stockings is appropriate. At higher stocking rates, many of the fish will survive the initial onslaught of predation and persist to spawning to help maintain their abundance through the year. Fathead minnows, though readily available and readily consumed by predator fish, are not recommended as a supplemental forage because they are very small, almost always eliminated quickly, and provide minimal short-term condition benefit to sportfish. They're great for new ponds, but an expensive minimal benefit to established fisheries.

- *Introducing a new sportfish*

Largemouth bass (50-100/acre), crappie (25-50/acre), hybrid striped bass (25-50/acre), and channel catfish (50-200/acre) are appropriate sportfish for stocking in Arkansas ponds. Crappie tend to be the most problematic species and more often than not ruin a

pond's fishery due to lack of forage, cover, and/or failure to control their population through predation from largemouth bass and harvest. Because of the popularity of crappie, we will provide guidance on how to make them work in ponds with a strong emphasis that the client understands the risk of failure in small ponds (especially less than 25 acres) is very high. Supplemental stocking of sportfish requires stocking larger individuals than you would for a new pond, because these fish are not meant to be eaten. Generally, 6 inches is the bare minimum size I recommend for supplementally stocked sportfish with 8 inches or larger preferred. Keep in mind though, price per fish increases with increasing size.

- *Introducing a pest-control species*

Grass carp (5-25/acre for certain soft-stemmed/leaved submerged aquatic plants), goldfish (35-65 lbs/acre for duckweed and watermeal), tilapia (200-400/acre for filamentous algae), and redear sunfish (100-200/acre for yellow grubs) can help control specific troublesome infestations.

- *Restocking following fish kill*

Fish kills can happen to even well managed ponds. When they occur, supplemental stocking can help rebuild the fishery and restore population balances. To determine what and how many to re-stock, an assessment using electrofishing boats is recommended for larger ponds. For smaller ponds (a few acres or less), draining and restocking from scratch can be faster and more likely to succeed than rebuilding from what is left after the kill. These situations are difficult; discussion with a fisheries professional is strongly encouraged.

One common misconception to be weary of is, "I want to catch more bass, so I'll stock more bass." Ponds can only support so many pounds of fish. This can be increased with water quality improvements, fertilization, aeration, feeding, habitat, etc., but the fact remains that ponds are limited by carrying capacity. An overly-simplified example; say your pond can support 100 lbs of bass. You can have 100 one pound bass, 10 ten pound bass, or something along that gradient, that's it. Stocking more bass into this pond will result in the average size declining because you have to spread that 100 lb capacity across all of the bass in the system. This basic concept holds true in real ponds and generally to add 1 pound of bass to a pond you must also add 5 to 10 pounds of forage to support it. If there is not enough fertility, habitat, or oxygen for this added load of fish, they will not grow well and the average size and condition of the fish in the pond will decline. This is why we spend so much time talking about boring chemistry, fertility, habitat, and forage when the owner is really only interested in the bass or crappie at the top of the food chain; to add to the top we must first build from the bottom.

Final quick stocking note: all fish stocked into Arkansas ponds must be sourced from an Arkansas Game and Fish Commission-Certified producer.

What to Watch Out for in April:

Aquatic weeds are growing now; this is the time for herbicide applications to begin for highest efficacy. The MP556, SRAC0360, and MP44 contain information on selecting herbicides. The easiest plant ID tool available now is Texas A&M's Aquaplant "Identify a Plant" directory <https://aquaplant.tamu.edu/>. The MP556 and MP360 contain photos of many of the common problematic weeds in Arkansas. You can also text or email me photos of the plant you're dealing with and I can advise. IMPORTANT: If you encounter an aquatic weed you suspect to be non-native, such as hydrilla, giant salvinia, or water hyacinth, for example, (same for non-native fish like any of the bighead carps or snakehead) please report it to me or the Arkansas Game and Fish Commission Aquatic Nuisance Species Program Coordinator, Matt Horton Matthew.Horton@agfc.ar.gov 877-470-3309 ext. 1206. You are a valuable resource in the field that can help fight the spread of harmful invasives. If we confirm an invasive on a land-owner's property, we can work together to develop a plan to contain and hopefully eliminate that invasive from their property without disrupting normal operation.

Pond Management Tasks for April:

Fertilization and feeding programs should be underway. It is time for aquatic dye for weed/algae control. Be aware that during the rainy season dyes will need to be reapplied regularly to maintain effective concentration. Begin herbicide applications for troublesome weeds. This is a favorable time for fish stocking (species and numbers depend on the client's situation and pond conditions). Now that weather is nice, people will resume fishing so harvesting largemouth bass (10-15 lbs/acre/yr for normal ponds, 25-35 lbs/acre/yr for bass-crowded or highly productive ponds) is encouraged. Harvest of bluegill less than about 7 inches in length up to about 25 lbs/acre/yr is acceptable. Aggressive harvest of all crappie caught, especially from ponds smaller than about 25 acres is encouraged. Crappie are sexually mature at about 6 inches and can spawn prolifically (often resulting in overpopulation in small ponds) so aggressive harvest of eating-size crappie often does not result in crippling the spawning capabilities of the fishery. Begin mowing grass on dams and levees to keep brush and saplings from developing. Keep drains and spillways clear of debris and clogs so that they are working efficiently during the rainy season. Turn on aerators if they have been off for the winter. For diffused aeration systems, follow the startup schedule of: Day 1, run 30 minutes then turn it off the rest of the day. Day 2, run 1 hour. Day 3, run 2 hours. Day 4, run 4 hours. Continue doubling the run time each day until you are running 24 hrs/day and keep it on for the rest of the summer.

Message me with any questions or workshop planning ideas. It's pond season.

Take care,

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