Pond Stocking Recommendations

Sound fish stocking recommendations for ponds are made based on the pond's surface area and soil fertility, the owner's goals, and <u>decades of research</u>. For any pond, bass and bluegill should be the primary species considered for stocking. Redear sunfish, channel catfish, and fathead minnows are other highly recommended species and provide benefits for most ponds. Hybrid sunfish, black crappie, and grass carp are stocked into ponds under very specific conditions.

Largemouth bass and **bluegill** are the two species recommended by **EVERY** mid-western state for pond stocking. Why? Bluegill grow well on plankton/insect forage produced in ponds, bass grow well on bluegill as forage, both reproduce well in ponds, are fun to catch, and are good to eat. New research suggests that releasing most, if not all, of the **largest** bluegill reduces stunting issues.

<u>Redear sunfish</u>, a native species, should be included in most ponds as they provide some level of parasite control by eating snails. Redear sunfish do not produce as much young (fry) as bluegill, and as a result, grow a little faster. Redear sunfish, by themself, do not provide enough forage to support good bass growth.

<u>Channel catfish</u> are fun to catch and good to eat, but provide no specific benefit for ponds. Larger channel catfish accumulate fat and often bad flavors along with it. If there is not a desire to catch, harvest, and eat catfish, there is no <u>need</u> to stock channel catfish.

Channel catfish fry will not survive in ponds with other fish species. To maintain suitable numbers, they must be periodically restocked at the rate harvested plus 20% more. In established ponds restock only 8-inch or larger catfish, as they are considered "non-vulnerable" to bass predation. Research has indicated that approximately one-half of 6-inch catfish will be eaten by bass, resulting in twice the cost per fish, if stocked in ponds with an established bass population.

In general, <u>hybrid sunfish</u> should only be considered in very small ponds, due primarily to restocking costs. Hybrid sunfish offspring are often poor performing and undesirable. Hybrid sunfish do NOT provide enough food for bass! If bass are desired, true bluegill should be stocked to support good growth for bass. If bass are present, larger hybrid sunfish (3-5 inch) must be restocked regularly to maintain suitable densities of sunfish to catch. Restocking small-size hybrid sunfish will serve primarily to feed a hungry bass population. Some states recommend stocking hybrid sunfish with only channel catfish in ponds less than one-half acre. Redear hybrids are never recommended. <u>If You Must</u>: Stocking redear sunfish with hybrids may help alleviate low prey stocks for bass, but this has not been tested by good research.

<u>Crappie</u> should generally **NOT** be stocked in ponds. However, if <u>highly</u> desired, it is recommended that the pond be at least two acres and managed for a high density (crowded), slow-growing bass population. Black crappie should be the only species of crappie considered, as they will grow better than white crappie on insect/plankton forage found in ponds. Only stock black crappie the fall after the initial bass spawn is observed, at 200-300 per acre, through reliable fish dealers and SWCD sales. <u>If You Must</u>: black crappie could potentially be stocked in place of bluegill, but the results are undetermined by good research.

<u>Fathead minnows</u> should be stocked when bass are stocked. They and their fry will provide the initial forage for bass to ensure the best growth rate. Bass will eventually eliminate fatheads. Golden shiners or other "minnows" are NOT desirable for many reasons.

Grass carp can be considered, but should not be stocked before there is a need. Grass carp generally provide an "all-or-none" effect and must be "overstocked" to produce any appearance of plant control. The lack of plants will stimulate planktonic algae blooms. Algae blooms are the most common cause of summer fish kills in ponds. Older ponds or in ponds where soils are highly fertile are more susceptible to algae blooms and fish kills. If needed, stock five grass carp per acre and restock every five years to maintain plant control. **If You Must**: Grass carp do not prefer to eat the aquatic plant wild celery. Wild celery can help provide balance in ponds against algae blooms. After celery is established, low numbers of grass carp (~1-2/acre) can be used to ward off other nuisance plant species. Establish wild celery in new ponds **immediately**, as it is more difficult to introduce into older established ponds.

<u>Feeding</u> commercial fish food may allow larger and more fish to be produced, and with catfish and hybrids, more fish stocked. A minimum of 8 lbs., or more, of fish food per acre is required **daily** to increase fish growth

significantly. This can get expensive. Feeding smaller amounts of fish food can help monitor fish "health". If oxygen levels become too low in the summer the lack of fish responding to feed can be an early sign of trouble.

Your local IDNR fisheries biologist would be happy to assist you with any questions you may have about pond construction, stocking, maintenance, or fish and plant management. Please contact them, even before you construct your pond. For Clinton County, contact fisheries biologist: Eric Ratcliff, at 618-931-4217.

| Soil Fertility Key (see map) | Highly Fertile | | | Moderately Fertile | | | Low Fertility | | | |
|---|----------------|-------|--------|--------------------|-------|--------|---------------|-------|--------|--|
| Soil Type | Black | Light | Forest | Black | Light | Forest | Black | Light | Forest | |
| Number of SMALLEST-SIZE fingerlings to stock per surface acre | | | | | | | | | | |
| Largemouth bass* | 50 | 40 | 30 | N/A | N/A | N/A | N/A | N/A | N/A | |
| Bluegill | 250 | 250 | 250 | N/A | N/A | N/A | N/A | N/A | N/A | |
| Redear Sunfish | 250 | 250 | 250 | N/A | N/A | N/A | N/A | N/A | N/A | |
| Channel catfish** (optional) | 40-100 | 30-80 | 25-60 | N/A | N/A | N/A | N/A | N/A | N/A | |
| Fathead minnows | 5 lbs. | 5 lbs | 4 lbs | N/A | N/A | N/A | N/A | N/A | N/A | |



| Soil Fertility Key | Highly Fertile | | | Moderately Fertile | | | Low Fertility | | | | |
|---|----------------|-------|--------|--------------------|-------|--------|---------------|-------|--------|--|--|
| (see map) | | | | | | | | | | | |
| Soil Type | Black | Light | Forest | Black | Light | Forest | Black | Light | Forest | | |
| Number of SMALLEST-SIZE fingerlings to stock per surface acre | | | | | | | | | | | |
| Hybrid Sunfish | 750 | 500 | 250 | N/A | N/A | N/A | N/A | N/A | N/A | | |
| Channel catfish | 100 | 80 | 60 | N/A | N/A | N/A | N/A | N/A | N/A | | |
| Largemouth bass | | | | | | | | | | | |
| (optional) | 25 | 20 | 15 | N/A | N/A | N/A | N/A | N/A | N/A | | |
| | | | | | | | | | | | |
| Redear sunfish | | | | | | | | | | | |
| (recommended | 250 | 250 | 250 | N/A | N/A | N/A | N/A | N/A | N/A | | |
| w) | | | | | | | | | | | |
| Fathead minnows | 4 lbs. | 3 lbs | 2 lbs | N/A | N/A | N/A | N/A | N/A | N/A | | |

Soil fertility map of Illinois (note: some counties are divided)

Hybrid sunfish stocking option***

***only recommended for ponds less than ½ acre, as hybrids do not support good bass growth and their offspring do not perform well as the parental cross.

**stock the higher rate of channel catfish if harvest rates are expected to be high. Only restock channel catfish 8-inch or larger.

For other initial stocking or restocking considerations contact your IDNR fisheries biologist listed above.