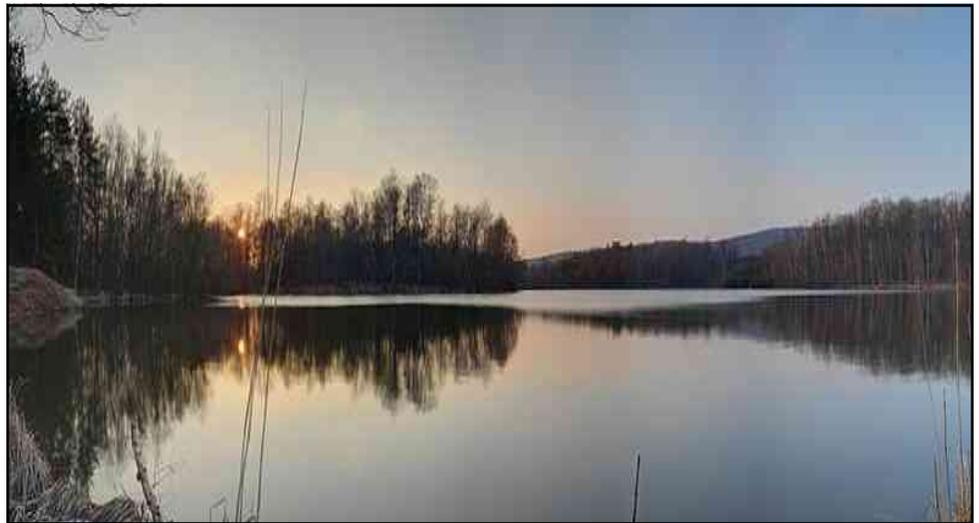


Monroe County Soil & Water Conservation District Fish Program Catalog

Inside

Triploid Grass Carp.....	2
Fathead Minnows.....	3
Channel Catfish.....	4
Koi (no longer offered).....	5
Yellow Perch.....	6
Largemouth Bass.....	7
Rainbow Trout.....	8
Black Crappie.....	9
Pumpkinseed.....	10
Bluegill.....	11
Barley Straw.....	12



Fish Stocking Program

The Monroe County Soil and Water Conservation District's fish program is a biannual event, offered in spring and summer each year. Harsh winters cause many fish kills in ponds throughout Monroe County, and the Soil and Water Conservation District offers this program to help restock ponds. The species typically available for stocking include, but are not limited to:

**Triploid grass carp (10-14"), Bluegill (3-5"),
Fathead minnows (2-3"),
Yellow Perch (3-5") and Largemouth Bass (3-5" or 6-8")**

You will need to bring 20 gallons of **pond** water for every 6 Grass Carp, 500 minnows, 100 Bass, or 150 Perch for a travel time of 30-45 minutes. Please Do NOT use tap water! Use pond water and be sure to bring a cover for the container(s) you'll be using, so the water doesn't splash and your fish can't escape. Five gallon pails, old coolers, trash cans or other similar containers will work.

Monroe County Soil and Water Conservation District

145 Paul Road, Building #5 Rochester, NY 14624
(585) 753-7380

<http://www.monroecountyswcd.org/>

This document has been produced to provide a summary of potential species that MCSWCD offers - subject to yearly availability/changing regulations



Triploid Grass Carp

(*Ctenopharyngodon idella*)



Photo courtesy of New York State Department of Conservation.

The triploid grass carp are one of the largest members of the minnow family, reaching a weight of over 25 pounds and a lifespan of over 10 years. This species is native to the rivers of eastern China and Russia. They have been introduced to over 50 countries around the world because of their ability to control a variety of aquatic vegetation. A common problem facing pond owners is the over abundance of aquatic vegetation. Stocking grass carp is a viable solution for aquatic vegetation control. Triploid grass carp are identical to grass carp except that they are sterile and cannot reproduce. Concerns over possible uncontrolled reproducing populations of grass carp becoming established in sensitive aquatic habitats has resulted in the triploid grass carp being the only legal grass carp in New York, which is regulated by the New York State Department of Conservation (NYS-DEC).

This species is a strict herbivore and feeds only on vegetation, ensuring that other pond inhabitants such as other fish, mollusks, and insects are not directly impacted. It should be noted that grass carp are extremely potent plant consumers and if a pond is overstocked they are capable of eradicating all plants from a pond. Besides the obvious impact such complete plant removal will have on vegetation-dependent fish and wildlife, total removal of vegetation may also result in the development of severe algae blooms, foul smells and an overall decline in water clarity. It is recommended that the plant population cover 20-30% of the pond surface area to maintain ideal habitat conditions.

Individuals desiring to stock triploid grass carp must obtain a stocking permit from the NYS-DEC. Triploid grass carp permits are available at the: NYS-DEC Regional Bureau of Fisheries office, online at www.dec.ny.gov/docs/fish_marine_pdf/grasscarppermitappl.pdf or the Monroe County Soil and Water Conservation District office, online at monroecountyswcd.org/Pages/Fish.html

Fathead Minnows

(Pimephales promelas)

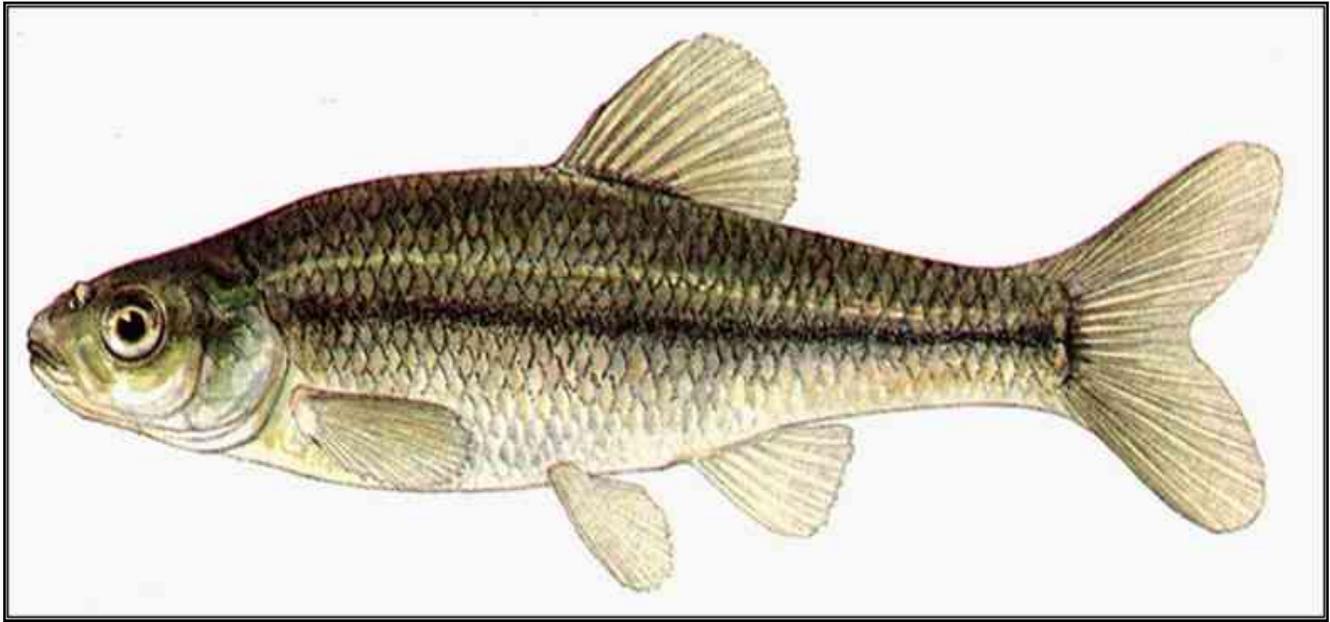


Photo courtesy of New York State Department of Conservation.

The fathead minnow is a common minnow native to New York. These small minnows (averaging 2 to 3 inches in length) are one of 48 species of minnows found throughout the state. They generally prefer small ponds or slow moving water bodies. This species is highly adaptable and can tolerate muddy water, and increased salinity.

Fathead minnows are a unique species. Unlike other minnow species, fathead minnows do not use typical nests, but rather deposit their eggs in out of site places like the undersides of logs and rocks. During the breeding period, the males will invest much time and energy in the care of their eggs. When breeding, males will use physical and chemical means (pheromones) to attract a female into their prebuilt nests. The release of this chemical can also help as an anti-predatory tactic, by warning other fish of a threat.

Fathead minnows are a social animal and usually collect in schools. They have the ability to use chemical cues, that allows them to distinguish between familiar and unfamiliar fish. This may also be related to their unique courtship behaviors and why they have such success reproducing.

Fathead minnows are omnivores, and are considered benthic (bottom) filter feeders, where they will sift through mud and silt to find their food. They are considered an important food source for larger fish and other wildlife species, and are commonly used as bait or stocked in farm ponds as forage for other fish.

When stocking fathead minnows, MCSWCD recommends a rate of 2000 fish per acre of pond surface and offers them at a length of 1-2 inches.

Channel Catfish

(Ictalurus punctatus)



Photo courtesy of New York State Department of Conservation.

In New York State, the channel catfish is the largest member of its family reaching weights of 20+ pounds and surviving for more than 15 years. These highly adaptable native species are able to survive in a wide range of environments, living in both fresh and brackish water. Channel catfish prefer fairly swift flowing streams with sand, gravel, or muddy bottoms, and little vegetation. However, they can be found in lakes, ponds and slow moving streams as well.

Channel catfish are most active at dawn and dusk, and are usually dormant during the day, hiding under logs and rocks. Spawning will commonly occur in the summer months (May through July). When spawning, channel catfish will usually find a protected area where the water is clear so they can burrow a tunnel or nest. In a pond catfish reproduction is uncommon, due to the habitat required for breeding. After breeding the males will protect the eggs 4 to 10 days until hatched. Feeding primarily on the bottom of lakes, ponds, and streams, adult channel catfish will consume crawfish, insect, snails, aquatic plants, algae, seeds, and small fish. Being a very opportunistic eater, they have also been known to eat birds.

One unique aspect of channel catfish is that they have taste bud-like sensors located all over their body. This gives them the ability to perceive various amino acids in their environment, allowing them to differentiate among prey. This is key a adaptation because this species is nearly blind. Another unique characteristic is their ability to hear sounds. Catfish are able to amplify and use vibrations that come from their body and swim bladder. This allows them to send and receive various frequencies.

When stocking channel catfish, MCSWCD recommends a rate of 300 fish per acre of pond surface and offers them at a length of 1-2 inches.

Koi

(Cyprinus carpio haematopterus)



Photo courtesy of Wikimedia Commons.

Koi are now listed as a regulated invasive species in New York State. Studies have suggested that Koi, when released or escape into natural waterbodies, have harmful impacts on native aquatic vegetation and have also been known to consume the eggs of native fish species. Since these are now a regulated invasive species by NYS Department of Environmental Conservation, we are no longer offering Koi at our Fish Stocking Program Events. Please feel free to contact our office for suggestions on similar functional replacements for your pond.

Yellow Perch

(Perca flavescens)



Photo courtesy of New York State Department of Conservation.

Yellow perch is native species to New York and is usually one of the first fish caught by beginning fishermen. Found mainly in lakes and sometimes in impoundments of larger rivers, yellow perch are active primarily during the morning and evening. Yellow Perch usually avoid cold deep water and warm surface waters during the summer, preferring moderate water temperatures. Clear water is important, as excessive turbidity and silt could lead to death of perch. In addition, they prefer an environment that is shallow and full of vegetation.

Adult yellow perch are distinct for having their unique yellow scales with black stripes and can range from 6-12 inches long. The growth rate of perch varies greatly depending upon environmental conditions. Yellow perch are particularly prone to stunting, a condition where one fish population can be smaller than other fish populations in the same geographic region.

Yellow perch will eat a variety of organisms, including zooplankton, insects, crayfish, and other fish. They usually spawn through April & May in shallow, well vegetated areas, when water temperatures reach 45-52 degrees Fahrenheit.

When stocking yellow perch, MCSWCD recommends a rate of 300 fish per acre of pond surface and offers them in a variety of sizes depending upon the season, typically 2-3 inches.

Largemouth Bass

(Micropterus salmoides)

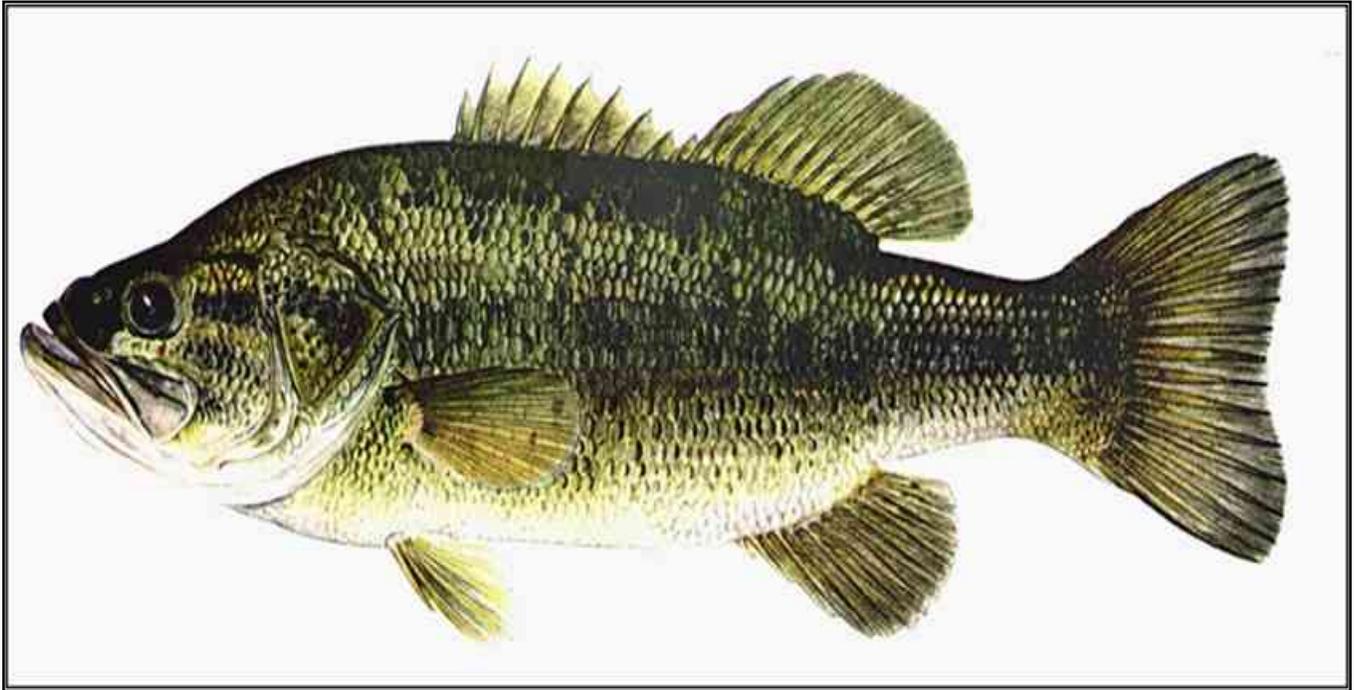


Photo courtesy of New York State Department of Conservation.

Largemouth Bass are a very popular New York State game fish. This species prefers quiet, densely vegetated ponds, streams, and lakes with shallow, clear water. Largemouth bass can reach a size of up to 10 pounds and live up to 15 years. Largemouth bass play an important part as a top predator in their ecosystem, and consumes a variety of fish, crayfish, and frogs. They will hide in the cover of weeds wait for potential prey, ambushing it when it is within striking range.

Largemouth bass tend to be more active in the morning and at night, moving from deep to shallow waters and usually following the movement of other prey species. They commonly spawn in late spring or early summer, when the water temperature reaches approximately 60 degrees Fahrenheit. Largemouth bass spawn in dense aquatic vegetation, where the males will guard the eggs until hatched.

When stocking largemouth bass, MCSWCD recommends a rate of 100 fish per acre of pond surface and offers them in various sizes depending upon the season, typically about 2-3 inches.

Rainbow Trout

(*Oncorhynchus mykiss*)

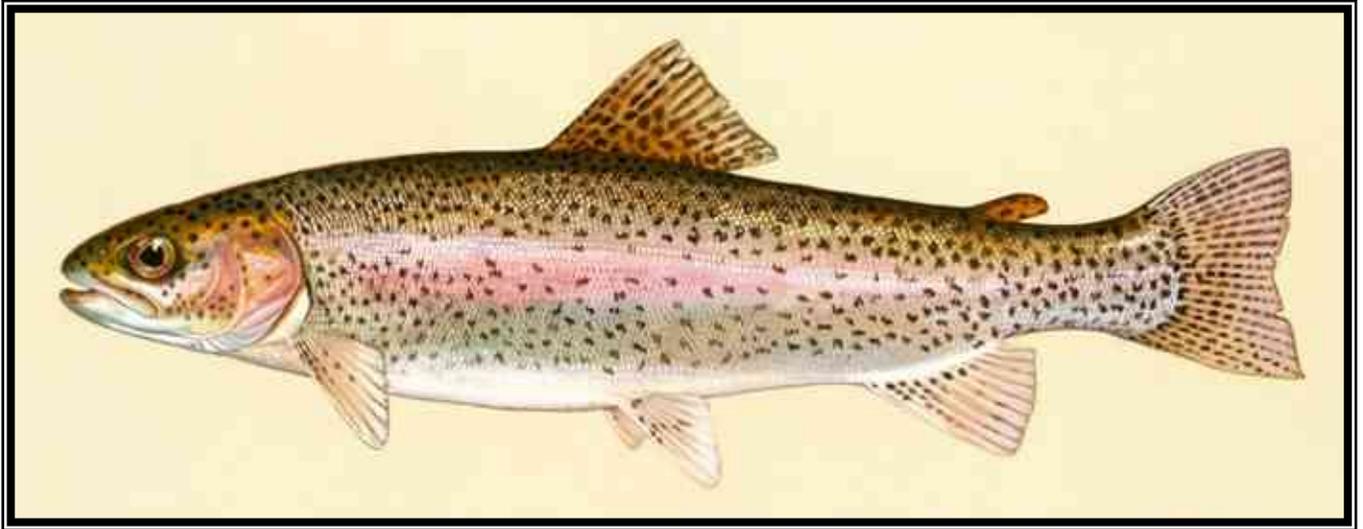


Photo courtesy of New York State Department of Conservation.

Rainbow Trout are native to cold streams, rivers and other water bodies west of the Rocky Mountains. They have been introduced to waters throughout North America due to their popularity as a game fish. These fish can grow up to 30 inches and weigh 8 pounds and typically live for 4 to 6 years. Rainbow Trout vary in color from a dark olive green to brown with a white underbelly, a reddish horizontal stripe on both sides and dark spots over the whole body.

These fish are opportunistic feeders. Depending on the habitat they are in, they will feed on a variety of food sources such as insects, smaller fish, crayfish and sometimes the eggs of other fish. Rainbow Trout spawn in the spring by swimming up stream to cold headwaters and laying eggs in a “red” which is a depression in the gravel in a streambed. It is unlikely that Rainbow Trout will spawn in your pond due to the nature of their spawning habitat.

Stocking quantities of rainbow trout per acre varies with pond productivity and establishment, but should not exceed 20 fish (<6 inches) per acre of pond surface. Rainbow trout are coldwater species and should only be stocked them in a **cool, deep pond** as they need cold water to survive. Rainbow Trout are offered when available. Please check our order form to see if this species is available for the current Fish Stocking Program

Black Crappie

(Pomoxis nigromaculatus)

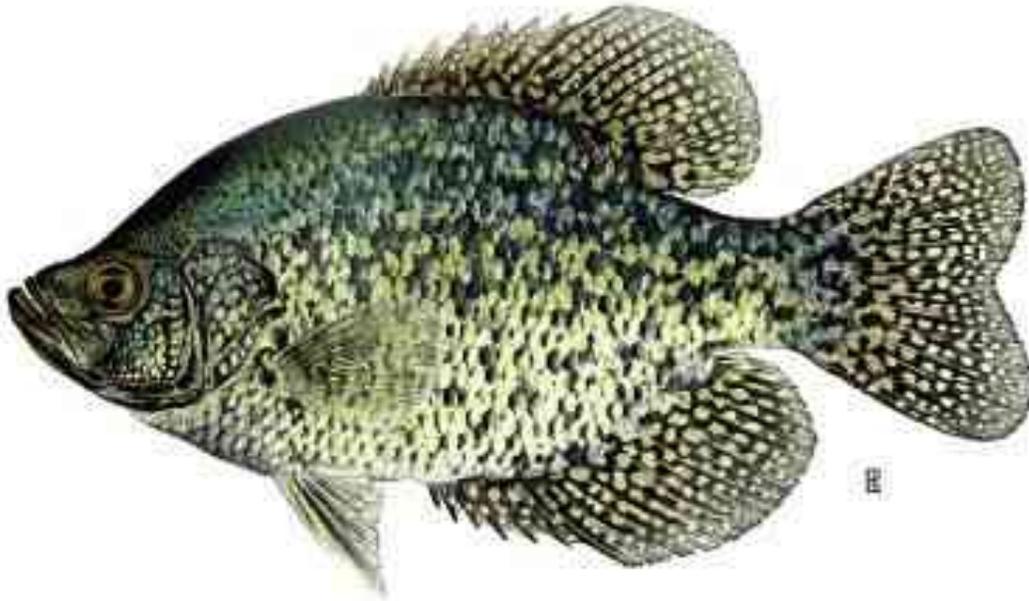


Photo courtesy of New York State Department of Conservation.

The Black Crappie are native to New York and can be found in most freshwater systems. They prefer clean water and are attracted to habitat with aquatic vegetation. They have been introduced to waters throughout North America due to their popularity as a game fish. The Black Crappie looks black and white, but with a closer examination it has iridescent colors and sheens. The back coloring is olive to bright metallic green, or a bluish gray. On its sides are dark spots that are scattered or appear in indistinct horizontal rows, not in vertical rows, as on the White Crappie. The Black Crappie and the White Crappie are very similar species but can be distinguished by the number of dorsal fins. The Black will have 7 or 8 and the White will have 5 or 6 dorsal fins.

Crappies feed on insects, aquatic larvae and small crustaceans and are a schooling fish. They feed most actively in the early morning and late at night. Black Crappies continue to feed during the winter, which makes them popular with ice anglers. As they grow, they begin feeding on other fish.

Similar to other sunfish, in late spring or early summer males build nests on gravel bottoms near the shore and vegetation. The nests are eight to 15 inches in diameter, in colonies, but spaced five to six feet apart in a colony. A half-pound Black Crappie female produces from 20,000 to 50,000 eggs, and may spawn in the nest of more than one male. The males guard the nest and eggs, which hatch in three to five days. The males protect the hatched fry for a short time, until the young fish leave the nest. Immature crappies grow fast, to about 3 1/2 inches the first year and to eight inches the second year. It usually takes four years for Black Crappies to reach 12 inches, and the fish may grow to 16 inches long. They are intolerant of muddy or silty waters and can sometimes be replaced by the more resilient White Crappie.

When stocking Black Crappie, MCSWCD recommends stocking 100 fish per acre.

Pumpkinseed

(*Lepomis gibbosus*)



Photo courtesy of New York State Department of Conservation.

Pumpkinseed fish are a small species that measure 6-8 inches but can grow up to 10 inches and weigh less than one pound. They are very colorful and speckled. The Pumpkinseed inhabits lakes and streams with submerged vegetation and have been found in all watersheds of New York State. The pumpkinseed is closely related to the smallmouth and largemouth bass. They are often confused for other sunfish, such as bluegill. However, they can be distinguished for the wavy stripes on their cheeks and red border on ear flaps.

They are active during the day and rest near the bottom at night. They feed at all water levels, mostly during the afternoon. They feed mainly on insects, aquatic larvae and small crustaceans. In late spring or early summer males build nests on gravel bottoms near the shore. They use their caudal fins to scrape out shallow depressions, which are usually twice the size of the fish. After the females arrive and the eggs are fertilized, the male fish will guard the eggs until they hatch. The male will also guard the fry for an additional week. The young fish stay in the breeding area for the first year and can grow up to two inches. They are a schooling fish and will even build nests close to each other.

The pumpkinseed is quite common but spawning activity can be disrupted by shoreline erosion and heavy lake use. Since the pumpkinseed is so susceptible to silt development in the water, they are often good indicators of water quality.

When stocking pumpkinseed, MCSWCD recommends stocking 100 fish per acre.

Bluegill

(Lepomis macrochirus)

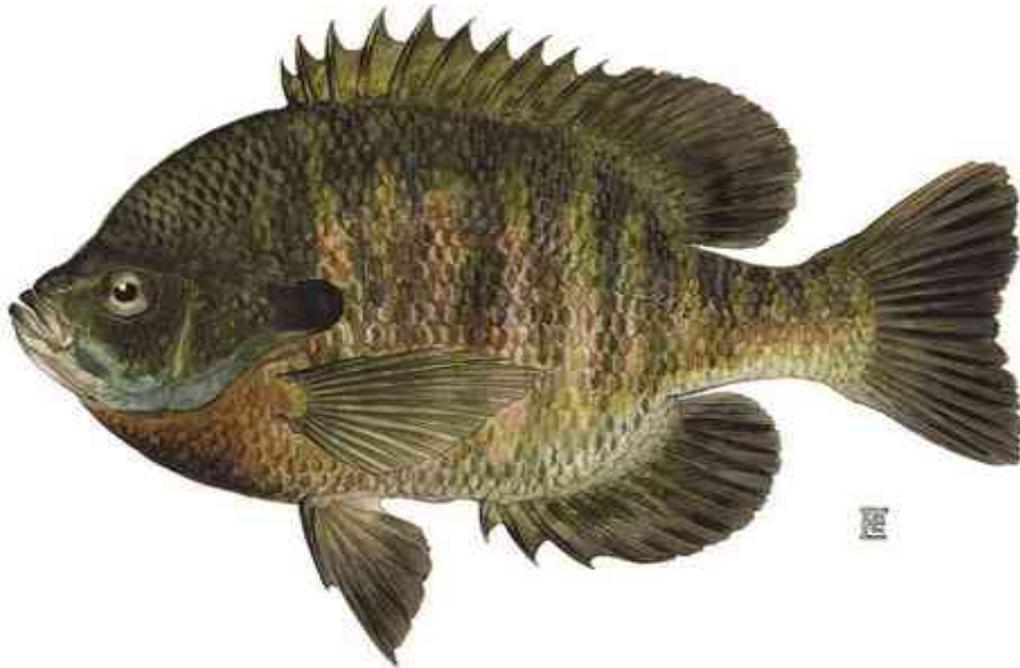


Photo courtesy of New York State Department of Conservation.

The bluegill is a colorful fish that grows 4 - 10 inches long. The bluegill is widespread throughout New York State. It is found in slow-moving or standing water with plenty of vegetation or other shelter such as docks and logs. Bluegills feed during the day and most actively in the morning and afternoon. Their food consists of small fish, crustaceans, insects, and plant materials.

Bluegills nest in colonies where their nests are so close they often merge together. They prefer to build their nests on firm sand or mud with some debris but little vegetation. The nests are 8 to 12 inches in diameter and located in water that is 1 to 3 feet deep or shallower. In New York spawning occurs from late May through July, when water temperatures reach the 70's F. Bluegills will start reproducing in their second year, and they have been observed to live as long as 11 years.

The bluegill has frequently been stocked in farm ponds and other impoundments. They thrive in warm, shallow farm ponds to the point where they sometimes overpopulate and their growth is stunted.

Bluegill provide an excellent supply of food for bass, as they will spawn throughout the summer and produce an abundance of small fish for bass to feed upon. If a pond becomes overpopulated with bluegills, a more aggressive predator such as walleye may be stocked to reduce their population.

When stocking Bluegill, MCSWCD recommends a rate of 50 fish per acre of pond surface and offers them at a length of 4-6 inches.

Barley Straw

The installation of barley straw has been known to increase the water clarity and decrease the growth rate of algae in ponds. It is thought that a fungus decomposes the barley straw once submerged in water and, as a by-product of that decomposition, an enzyme or chemical is released into the pond. This enzyme or chemical helps clarify water and prevents or slows the growth of certain types of algae in ponds. Results are variable, but the application of barley straw in ponds has been growing in popularity.

Application of barley straw is recommended early spring, typically in the month of April, before algae growth begins and will control the growth of algae for about 4-6 months.

When using barley straw, an important thing to consider is the proper placement of the straw itself. You do not want to throw bales or handfuls of barley into the water. The bales must be broken up and placed loosely into a porous bag or netting (anything permeable) that will allow water and oxygen to flow through the straw. A general recommended rate is 225 pounds of barley straw per acre of pond

surface area (about 5 bales). If the pond receives a lot of wind, tying the rope at the end of the barley straw bag to a cinder block will anchor the barley straw in one area. Contact the MCSWCD for specific application rates for your pond.



Barley straw being floated in one section of a pond. The porous bags allow water to permeate through the bag, allowing the barley straw to become saturated.